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USSR Report

AGRICULTURE

No. 1402

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CONTENTS

MAJOR CROP PROGRESS AND WEATHER REPORTING

Moscow Radio Reports Agricultural Developments for 24 August (Moscow Domestic Service, 24 Aug 83)	1
Moscow Radio Reports Agricultural Developments for 25, 26 August (Moscow Domestic Service, various dates)	3
Moscow Radio Reports Agricultural Developments for 27-30 August (Moscow Domestic Service, 27-30 Aug 83)	5
Moscow Radio Reports Agricultural Developments for 31 August (Moscow Domestic Service, 31 Aug 83)	7
Moscow Radio Reports Agricultural Developments for 1-3 September (Moscow Domestic Service, 1-3 Sep 83)	9
Moscow Radio Reports Agricultural Developments for 4-7 September (Moscow Domestic Service, 4-7 Sep 83)	11
Moscow Radio Reports Agricultural Developments for 8-10 September (Moscow Domestic Service, 8-10 Sep 83)	13
Measures for Reviving Frost-Damaged Crops in Kirgizstan (A. Savitakhunov; SOVETSKAYA KIRGIZIYA, 20 May 83)	15
Harvest Problems in Chimkent Oblast Discussed (V. Torskiy; PRAVDA, 3 Jul 83)	18
Progress in Krasnodar Grain Harvesting Reported (Yu. Semenenko; SEL'SKAYA ZHIZN', 24 Jul 83)	20
Spring Sowing Campaign in Kazakhstan Described (KAZAKHSTANSKAYA PRAVDA, 29 Apr 83)	22

Spring Sowing Operations in Kazakh SSR Reviewed (KAZAKHSTANSKAYA PRAVDA, 21 May 83)	24
Cold Spell in Kazakhstan Disrupts Agricultural Work (KAZAKHSTANSKAYA PRAVDA, 24 May 83)	26
Spring Wheat Cultivation Considerations in Turgay Oblast (V. Savel'yev; KAZAKHSTANSKAYA PRAVDA, 21 May 83)	27
Briefs	
Moisture Retention	30
Sowing of Grain Crops	30
Sowing of Perennial Grass	30
Completion of Wheat Sowing	30
Cost Accounting Mechanized Brigades	31
Collective Contract	31
Spring Field Operations	31
Intensive Grain Varieties	32
Strong Wheat Varieties	32
Watch Method of Work	32
New Regionalized Wheat Varieties	33
Shortened Sowing Period	33
Grain Crop Sowing Completed	33
Changing Conditions	34
Grain Planting	34
Corn Planting	34
Fallow Fields	35
Wheat Planting	35
Promising Strains	35
Early Crops	35
State Grain Bins	35
Credited to Commitment	36
Sochi Hurricane	36
Both Cultivation and Top Dressing	36
Harvest Beginning	36
Organized Harvesting	37
Efficiently, Smoothly	37
Gathering Speed	37
Oblast Leaders	37
Large Yield	37
Efficiently, on Schedule	37
First in the Oblast	38
The First Grain	38
Fulfilling Plans	38
Voronezh Bread	38
Kursk Harvest	39
Grain Deliveries	39
First Swathes	39
Increasing Rates	39
High Rates	40
Belgorod Fields	40
20,000-22,000 Hectares Daily	40
Fergana Oblast Field Work	40

4,000 Hectares of Corn	41
First Alfalfa Cutting	41
Alfalfa Mowing Resumed	41
Grain Harvest Commences	41
Winter Barley Increase	41
High Wheat Yields	42
Wheat Sales to State	42
Preparations for Wheat Harvest	42
Optimum Haying Period	42
Barley, Wheat Harvest Completed	43
Grain Sales to State	43
Grain Harvest Commences	43
High Grain Yield	44
Harvest in Full Swing	44
New Grain of Kazakhstan	44
Grain Transport Operations	44
Early Grain Crops	45
Grain Harvest Final Stage	45
New Wheat Varieties	45
Grain Deliveries Continue	46
Grain Sales Continue	46
Crop Damage From Rainfall	46
Grain Plan Fulfillment Possible	47
Grain of New Harvest	47
Flocks of Sheep Rescued	47
Kirghiz Grain Harvest	47
Early Field Operations	48
Kirghiz Barley Sowings	48

LIVESTOCK FEED PROCUREMENT

Belorussian Feed Quality, Green Harvest Yield Reviewed (SEL'SKAYA GAZETA, various dates)	49
Ministry Notes Unsatisfactory Progress Shortcomings Indicated	
Quality Control of Green Feed in RSFSR (M. Ovcharenko, T. Degryareva; SEL'SKAYA ZHIZN', 11 Aug 83)	54

LIVESTOCK

Automated System for Livestock Management Explained (ZHIVOTNOVODSTVO, No 7, Jul 83)	57
Features of 'Seleks' System, by L.K. Ernst Use in Cattle Breeding, by T.G. Dzhaparidze, V. Ye. Kirsanin	
Industrialized Hog Production in Kazakh SSR (S. Yerzhanov, V. Mukhamedzhanov; NARODNOYE KHOZYAYSTVO KAZAKHSTANA, No 6, Jun 83)	65

AGRO-ECONOMICS AND ORGANIZATION

Editorial Outlines Decree on Interrelations of Agroindustrial Complex (Editorial; SEL'SKAYA ZHIZN', 24 Jul 83)	68
Labor Problems in Production of Fine-Fibered Cotton in Uzbek SSR (D. Sharapov; EKONOMIKA SEL'SKOGO KHOZYAYSTVA, No 7, Jul 83)	71
Problems, Prospects of Estonian Agriculture Examined (KOMMUNIST ESTONII, No 6, Jun 83)	77
Improving Fixed Capital Utilization in Uzbek Cotton Industry (M. Imamutdinov, Kh. Umirov; SEL'SKOYE KHOZYAYSTVO UZBEKISTANA, No 5, May 83)	88

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 24 AUGUST

LD250550 [Editorial report] The following is a compilation of reports on agricultural developments in THE USSR carried by Moscow Domestic Service in Russian on 24 August. Times of broadcasts are given in parentheses at the end of each item.

The harvest in Kustanay Oblast has reached the highest level of intensity. The 24-hour productivity of combines has exceeded 300,000 hectares, one-third more than envisaged by the schedule. Average production by each participant in the harvesting campaign is 25 percent higher than last year. (0001 GMT)

Very valuable fine-fiber cotton has started arriving at Turkmenistan's procurement points from the farms of the Prikopetday plain. Specialization of the farms of (?Ashkhabad) Oblast is growing early ripening varieties of fine-fiber cotton has made it possible to start picking ahead of schedule. The lengthy irrigation period, the abundance of sun and water which reaches the valley via the Karakum Canal ensures the very highest quality of fiber. Cotton has also begun to be transported along the roads of Chadrzhou Oblast. During the years of the present 5-year plan period the Amu-Darya Valley has become a major zone for the cultivation of drought-resistant, high-yield, (?medium-fiber) varieties of cotton. (0001 GMT)

Bashkiria: By this morning 1.5 million tonnes of grain has been delivered to the state by the ASSR's kolkhozes and sovkhoses. (0400 GMT)

Ryazan Oblast: All kolkhozes and sovkhoses today joined in sowing winter crops. Almost 400,000 hectares have been allocated to grain crops there. (0400 GMT)

Today, farmers of Gorkiy and Omsk Oblast simultaneously reached the same point--they began grain harvesting on the second million hectares. The machine operators work under difficult conditions. Due to the arid summer, the grain is stunted and very sparse on the majority of the Omsk Oblast sovkhoses and sovkhoses. Consequently, a different technique was used on each field. The main efforts of machine operators have been directed toward reducing harvesting time and the time between cutting and threshing. (0400 GMT)

Seven Kazakhstan oblasts fulfilled their annual hay procurement plan as of today. Kustanay Oblast farmers procured 1.1 million tonnes of hay; they plan to procure more than 4 million tonnes of silage this year. (0800 GMT)

Altay: Grain has been reaped on the first 1 million hectares, which is one quarter of the area sown. (0800 GMT)

To date grain crops have been cut in North Kazakhstan Oblast over 800,000 hectares, almost half the area. (1100 GMT)

Farms in Central Volga have begun harvesting groat crops. (1100 GMT)

Gorkiy Oblast farmers today started reaping grain on the second million hectares. (1300 GMT)

Aktyubinsk Oblast: The daily sale of grain in the oblast has reached its highest mark: 32,00 tonnes. This is nearly double the amount sold last year by the same date. (1750 GMT)

CSO: 1824/582

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 25, 26 AUGUST

LD270358 [Editorial Report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 25, 26 August. Times of broadcasts are given in parentheses at the end of each item.

[25 Aug 83]

Kazakhstan's machine operators are conducting the harvest at a high pace. To date they have reaped wheat and barley on half of the entire grain field. On almost the whole of this area windrows have been removed and threshed. Some 100 million quintals of grain has arrived at the threshing floors. A very high yield has been obtained in Uralsk, Taldy-Kurgan and Kustanay Oblasts. (0400 GMT)

Sugar-beet harvesters are out in the fields of Penza Oblast where it occupies about 60,000 hectares. (0600 GMT)

Tselinograd Oblast: Over 500,000 hectares of grain has been harvested. (0800 GMT)

Mass winter rye sowing started today in Belorussia, where the crop will cover over 1 million hectares. About 10 percent of the grain remains to be threshed in Mordovia, after which workers will transfer to the potato harvest, where crops cover over 30,000 hectares. To date 3 million tons of silage for winter keeping have been procured in Stavropolye--over half that planned. Corn and soya are the main components, ensuring high quality fodder. Cotton-cleaning works in Ashkhabad and Mary Oblasts, Turkmenistan, today produced their first tonnes of this year's cotton harvest. Over 1 million tons of raw cotton will be processed this year in the republic, of which almost 300,000 tons will be fine-fibered. (1100 GMT)

In some farms of Gorkiy and Orel Oblasts there is a considerable amount of peas waiting to be delivered to procurement points. In 22 days of August the Volga Railway has considerably delayed delivery to elevators of Volgograd and Saratov Oblasts. Owing to this 146,000 tons of grain remains undelivered in Volgograd Oblast. In the Kuban 157,000 tons of grain remains undelivered. In Kustanay Oblast the harvest is the best in years, but in some rayons of Tselinograd and Kokchetav Oblasts not everything is yet in full swing,

because the harvest came early this year. There is no problem in drying the grain, as the weather is good and dry in Kazakhstan. (1100 GMT)

Sugar beet processing has begun in the Ukraine in Kiev Oblast. Every day over 2 million tonnes of sugar beet can be accepted. Republican sugar refineries plan to increase the output by one-third, compared with last year. (1300 GMT)

Mass sowing of winter crops has started in Belogrod Oblast, the southernmost oblast in the Central Chernozem Zone. Self-planning teams, which have assumed responsibility for the cultivation of grain, are to sow winter crops on about 500,000 hectares. (1530 GMT)

Grains occupy over 4 million hectares in Kustanay Oblast. These are being harvested at the high rate of almost 300,000 hectares per day. (1800 GMT)

[26 Aug 83]

Machine operators in Saratov Oblast are harvesting the last tracts of grain on a field that is 4 million hectares of winter grain, spring wheat, and millet. Sunflowers are yet to be harvested. They are still ripening and cover over 300,000 hectares. (0400 GMT)

Threshing of grain has begun on the second million hectares in Kustanay Oblast; the total area under crops here is 4,250,000 hectares. (0600 GMT)

Threshing of grain is underway on the fourth million hectares in Orenburg Oblast. (1100 GMT)

The harvest has entered its final stage in Kuybyshev Oblast. Every day 45,000-50,000 tons of grain is now reaching state reception points from farms in the oblast. Farmers in Kuybyshev have decided to make good as much of the arrears from previous years as possible. In order to prevent losses a new type of automatic installation which monitors grain storage temperatures has been assembled and made operational at the Sernyye Vody elevator. Hitherto employees have had to take thousands of individual temperature measurements every day. The oblast's grain reception points can now dry virtually all the grain being received at any one time. (1100 GMT)

Kuybyshev Oblast machine operators started cutting grains on the last 200,000 hectares today. Grains have been harvested here from 80 percent of the area. Meanwhile, in Tselinograd Oblast more than 500,000 hectares of grain crops have been threshed. (1530 GMT)

CSO: 1824/582

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 27-30 AUGUST

LD310450 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 27-30 August. Times of broadcasts are given in parentheses at the end of each item.

[27 Aug 83]

Altay Kray machine operators have finished reaping grains on the first 1 million hectares. In the Tatar ASSR grain harvesting is coming to an end; most rayons in the republic have fulfilled the tasks, and have sold more than 1 million tons of grain and pulse crops to the state. In Penza Oblast about 60,000 hectares are occupied by sugar beet. (0800 GMT)

Sowing of winter crops has begun in the Ukraine. Machine operators have sown seeds of wheat, rye and barley on the first 100,000 hectares. The winter crops area occupies almost 9 million hectares. (1100 GMT)

The harvest is in full swing in the northern oblasts of Kazakhstan. In all areas machine operators today began mass threshing of wheat, which occupies about 12 million hectares in the republic's main grain-growing area. (1500 GMT)

[28 Aug 83]

Cutting of grain is proceeding today on the 2d million hectares in Tselinograd Oblast. (0330 GMT)

Tselinograd Oblast: Machine operators are cutting grain crops on 2 million hectares today; bread grains have already been threshed on a quarter of all areas. Tambov Oblast: Mass sowing of winter crops has got underway. Uzbekistan: Corn harvesting work is coming to an end; 100,000 hectares remains to be harvested. (0600 GMT)

Farmers of Omsk Oblast reaped grain crops on 1.3 million hectares by today. This is almost two-thirds of the area under the grain crops. (0800 GMT)

Altay Kray: Machine operators are cutting grain from 150,000 hectares daily, taking advantage of the good weather. (1100 GMT)

Don Basin farmers have begun mass sowing of winter crops, which will cover an area of almost 500,000 hectares this year, half the whole grain-crop area of the Steppe Region. They intend to complete sowing in 8-9 working days. (1530 GMT)

Turkmenistan: Processing of this year's cotton harvest has started; 550,000 tons are to be processed by the end of the year. (1750 GMT)

[29 Aug 83]

A million tons of grain have been delivered in Penza Oblast; this is over 30 percent of the plan. Many farms have paid back the debt they incurred in the harvest failure of 1981. In Tambov Oblast over 1 million tons of grain have been delivered. Farms of Gorno-Mariyskiy Rayon, Mari Non-Chernozem Zone, have finished the grain harvest; the rayon has fulfilled one and a half of the annual plans for state grain sales, making good the debt of past years. (0400 GMT)

Southern Kirgizia: Harvesting of grain corn has begun. This crop takes up more than 40,000 hectares in Kirghizia. (1000 GMT)

[30 Aug 83]

In Kurgan Oblast the first 100,000 tons of grain have been delivered; harvesting is being done in difficult conditions with frequent rains. In Saratov Oblast 900,000 hectares of winter rye and wheat out of a planned 1 million hectares planned have been sown. (0204 GMT)

Grain is being harvested on the 16 millionth hectare in Kazakhstan. In the past 24 hours barley and wheat has been laid in swatches on 700,000 hectares. Grain has been gathered and threshed on 500,000 hectares. (0600 GMT)

Turgay Oblast farmers have cut and threshed grain crops on 83,000 hectares. Grain harvesting in the oblast has been completed on one-half of the grain area sown. Threshing of swathes has begun on the last million hectares in Orenburg Oblast; dryers are working round the clock since the rains have increased the dampness of the grain. In Saratov Oblast, sowing machines and tillage machines are out in the fields; conditions for sowing winter crops are very good following rains. The seeds are mostly being sown in fallows. Already 900,000 hectares has been sown to winter rye and wheat, out of the planned 1.1 million hectares. Cotton harvesting has moved to North Turkmenistan and Tashauz Oblast. Forty-three thousand hectares of cotton was sown using the precise sowing method which ensured, together with other agro-technical measures, early and healthy ripening. The major part of the raw cotton is to be gathered by machine. (1300 GMT)

Harvest in Orenburg Oblast is in final stages. Threshing of grain crops is under way on final million hectares. Harvest in Kazakhstan is proceeding amid difficult weather conditions, with heavy wind and rain hampering operators. Harvest veterans, schoolchildren and intellectual workers are helping them. Altay: Sowing of winter rye under way. More than 300,000 hectares to be sown with this crop--almost twice the area sown last year. Stavropolye: 90 percent of land ready for autumn sowing of winter crops. The area to go under winter crops is 1.7 million hectares. (1530 GMT)

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 31 AUGUST

LD010328 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 31 August. Times of broadcasts are given in parentheses at the end of each item.

[31 Aug 83]

Altay farmers have started sowing winter rye, the highest yield varieties of which will occupy 300,000 hectares, or almost twice as much as last year. (0100 GMT)

Kirghiz Mountain farmers are gathering in barley and wheat. Farms are engaged in mass procurement of fodder, potatoes and vegetables, and harvest of corn for grain has begun. Tending of cotton and sugar beet crops continues. Farmers have plowed 150,000 hectares for winter sowing. (0700 GMT)

As of today over 11 million hectares of grain and pulse crops have been harvested in the country. The main harvest front has now moved to Siberia, North Kazakhstan, the Russian Non-Chernozem Zone and the Urals Region. Harvesting is underway in the Orenburg Oblast on the 4th million hectare. Most work is now centered in the north and the east. Spring grain crops in the oblast cover 4.2 million hectares.

In North Kazakhstan's Kustanay oblast about 300,000 hectares are harvested daily. In Tatarsiya the harvest is in its closing stages and sales of the 2d million tonnes of grain are underway. Over 110,000 tonnes of peas have been sold, and all farms are fulfilling their plans for rye production and sales. A new strain of wheat, Rodina, is doing well, and on an individual farm is yielding about 40 quintals/hectare. (1145 GMT)

Belorussia: Potato lifting has already started here, somewhat earlier than usual. Farms in Gomel, Grodno, Brest and Minsk Oblast have begun lifting potatoes. In the republic as a whole, potato occupies over 360,000 hectares. Stavropol Kray: Machine-operators have readied 9 out of every 10 hectares for autumn sowing. The area is enormous: 1.7 million hectares. A third of this area is autumn fallow which in these drought-prone steppes safeguards stable harvests. (1200 GMT)

As of now. 1.5 million tonnes of corn for grain have been gathered in Uzbekistan. (1330 GMT)

Don: Harvesting of corn for silage and green feed is in full swing. More than 3 million tons of silage have already been laid in trenches. Procurement of hay, perennial grasses, haylage, grass meal, granules and briquettes, continues. Mass harvesting of rice has started. Machine-operators are carrying out cutting and threshing of millet on the last thousands of hectares. Soil preparation for winter crops has been completed in full. Seeds have been put in the soil on 400,000 hectares. Kursk Oblast: Mass lifting of sugar beet has started; the harvest results please beet growers; where team contracting is being used 350-400 quintals/hectare are being gathered. All work is fully automated. (2004 GMT)

Kirghizia has started procurement of the 4th million tons of fodder. Almost 1 million tons more has been laid in than in the same period last year. (2300 GMT)

CSO: 1824/582

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 1-3 SEPTEMBER

LD040106 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 1-3 September. Times of broadcasts are given in parentheses at the end of each item.

[1 Sep 83]

In Kazakhstan grain and pulses, not including corn, have been cut on an area of 15.6 million hectares. That is 64 percent of the sown area. Grain has been threshed from an area of 12.4 million hectares, which is 79 percent of the harvested area. During the past week the harvest was completed on around 4 million hectares. New varieties of wheat and barley regionally selected in Kazakhstan are producing greater harvest than traditional varieties. In Tselinograd Oblast the Tselinniy-5 barley variety stood up best of all to the] months of heat. It was sown on 500,000 hectares in the oblast. Tselinnaya-]l also showed its resistance to the drought. These varieties will be used regularly in North Kazakhstan, Kokchetav, Turgay and East Kazakhstan Oblasts, and they are to be sown on over 1.5 million hectares in the republic. (1330 GMT)

In Lithuania winter sowing of cereals has begun. Over 500,000 hectares are to be sown. (1530 GMT)

In Omsk Oblast grain has been threshed over an area of 800,000 hectares, which is more than one-third of the total area under grain, in spite of bad weather. In the lower reaches of the Terek rice harvesting has begun: in Kizlyar Rayon of Dagestan this crop covers 18,000 hectares, which amounts to three-fourths of the total area under rice in the autonomous republic. (1750 GMT)

[2 Sep 83]

Novosibirsk Oblast machine operators will start cutting grain crops on the second million hectares today. In Tselinograd Oblast grain has been threshed on an area of 1.5 million hectares. This is half the area planted. In Kirghizia grain harvesting is nearly completion. By comparison with last year the harvest is increased by nearly five quintals per hectare. The highest harvest has been grown in Issyk-Kul Oblast: almost 35 quintals of choice grain on average. (0204 GMT)

In Omsk Oblast wheat has been gathered from over 100,000 hectares to date. There is heavy rain almost every day in Bashkiria, which makes the harvest difficult. However, to date 2 million tons of grain have been delivered. In Ryazan Oblast mass harvesting of sugar beets starts today. The crop occupies almost 39,000 hectares. (0600 GMT)

In Kokchetav Oblast grain is being reaped at a rate of 100,000 hectares per day. (1500 GMT)

In Azerbaijan cotton picking has begun. Republican processing enterprises have received the first loads of cotton from the new harvest. This year the farmers have had to use their experience and skill to the full in order to overcome the consequences of heavy rains and hail. The harvest is good though, and the cotton ripened considerably earlier than usual. (1700 GMT)

In the Surkhan Valley in Uzbekistan cotton harvesting has begun earlier than last year, thanks to high-quality work on cotton plants and sudden temperature rises at the end of the summer. (1800 GMT)

[3 Sep 83]

Kursk Oblast agricultural workers have completed socialist pledges for the sale of grain to the state: 970,000 tons of grain, including 446,000 tons of wheat, have arrived at state granaries. The plan for the sale of legume grains was underfulfilled. Farms of the oblasts have stocked in seeds for the coming year. Kolkhozes and sovkhoses are harvesting and selling buckwheat and millet to the state. (0800 GMT)

In Uzbekistan tens of thousands of tons of cotton from this year's harvest have been delivered to procurement points. Work is in progress in the north as well as the south. Defoliation prior to picking is now in progress. More than two-thirds of the crop will be machine picked. (1904 GMT)

Orenburg Oblast farms have sold 3 million tons of grain to the state. (2230 GMT)

CSO: 1824/582

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 4-7 SEPTEMBER

LD080156 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 4-7 September. Times of broadcasts are given in parentheses at the end of each item.

[4 Sep 83]

Bashkiriya agricultural workers have delivered 2 million tons of grain crops to the state, and these sales are continuing. In the republic three-fourths of the grain crops have been harvested. In the Kuban the first sugar of the new harvest has been produced by the sugar factories. In all 6 million tons of sugar beet are to be processed in Krasnodar Kray during the season. (0400 GMT)

In the Shirak Steppe Georgia, the corn harvest has begun. In the majority of rayons in Latvia winter crop sowing has begun: This year about 230,000 hectares are allocated to rye and wheat. Rape has been sown in the far east for the first time and has produced good results there, yielding up to 400 quintals per hectare. (1530 GMT)

[5 Sep 83]

Orel Oblast has started the potato harvest: nearly 40,000 hectares are under this crop. In the Kuban rice growers start the harvesting of early strains of rice. An area of 175,000 hectares has to be reaped, and more than 600,000 tons of the grain have to be gathered. Omsk Oblast machine operators are working on the second half of their crops: Grain has been gathered in here from more than 1 million hectares. (0400 GMT)

In Saratov Oblast millet threshing is coming to an end. This is the largest growing area for this crop in the RSFSR, where it covers 300,000 hectares. (0600 GMT)

In Altay reaping of grain began today on the fourth and final million hectares. More than 200,000 hectares of cereals are cut and threshed daily. Winter crops have been sown on 300,000 hectares. In the south Ukraine large-scale sowing of winter crops began today. Nikolayev Oblast plans to sow almost 650,000 hectares. Winter wheat will have pride of place. (1100 GMT)

[6 Sep 83]

In Kursk Oblast new, high-yielding grain varieties have been sown on more than 500,000 hectares. (0700 GMT)

Voronezh farms have sold around 1.5 million tons of grain crops, including 124,000 tons of peas, to the state. (1300 GMT)

In the Urals Region of Kazakhstan the threshing of cereals was completed today. In Uzbekistan the first 50,000 tons of cotton have been delivered to procurement points. (1500 GMT)

In Kazakhstan grain crops are being harvested on the 20th of 25 million hectares. Uralsk Oblast farms have reported they have completed the harvest. Grain is being threshed over the last hectares in Aktyubinsk. There has been a good harvest of grain crops in these oblasts. On farms in Vlyanovsk Oblast mass harvesting of potatoes has begun. The crop covers 23,000 hectares. (1530 GMT)

[7 Sep 83]

In Uzbekistan, Azerbaijan, Turkmenistan, and Tajikistan cotton is now being picked by hand, but preparations for mechanized picking have begun. Quality is being emphasized, and this year new state standards are being introduced. Previously first-, second-, and third-grade mechanically-picked cotton was paid for as if it was all first grade hand-picked, and the picker had no incentive to raise cotton quality. Now the collective's work is appraised according to quality of cotton. (1100 GMT)

All Ukrainian oblasts are now harvesting sugar beets: 160,000 hectares of the crop area have been harvested to date. (1200 GMT)

CSO: 1824/582

MAJOR CROP PROGRESS AND WEATHER REPORTING

MOSCOW RADIO REPORTS AGRICULTURAL DEVELOPMENTS FOR 8-10 SEPTEMBER

LD110543 [Editorial report] The following is a compilation of reports on agricultural developments in the USSR carried by Moscow Domestic Service in Russian on 8-10 September. Times of broadcasts are given in parentheses at the end of each item.

[8 Sep 83]

Mass harvesting of potatoes and beet has begun in Tataria, where the crop covers more than 100,000 hectares. Omsk farmers have prepared more than 250,000 tonnes of seeds, more than half the planned amount, for spring sowing. (0200 GMT)

Cereal harvesting is in its closing stages in Kirghiziya, and the last thousands of hectares are being cut in the Tyan-Shan Mountains. Grain sales to the state are continuing apace: over 200,000 tonnes have been delivered to date. (0430 GMT)

Bryansk Oblast agricultural workers are fulfilling the state plan for the sale of grain to the state: 227,000 tonnes of grain have arrived at the grain reception enterprises from the farms of the oblast. The plan for wheat procurement has been overfulfilled. The plan for the sale of pulse crops has not been fulfilled. Kolkhozes and sovkhoses have ensured for themselves seeds for next year's harvest. Sale of buckwheat to the state is continuing. (0700 GMT)

Mechanizers of Tselinograd Oblast are threshing grain on the 3d million of hectares. According to operational data, by today the grain crops have been gathered from 80 percent of the fields. As previously, the leaders in the combine drivers' competition are the mechanizers of Astrakhan Rayon who are close to completing the harvesting. At the same time the flow of grain to state warehouses is growing. About 600,000 tonnes of grain has already been delivered to elevators. (0730 GMT)

Threshing of wheat has started now in N. Kazakhstan on the second half of the area, which is around 12 million hectares. Astrakhan Oblast fodder procurers have met stockbreeding requirements for haylage: 42,000 tonnes more this year than last year at this time. (0800 GMT)

Latvian farmers have begun mass sowing of winter crops and harvesting of potatoes. This year more than 240,000 hectares will be sown with winter crops. Thirty percent of the grain area has already been sown. (1330 GMT)

Winter crops have been sown on 1 million hectares in Saratov oblast to date. The area sown for rye and wheat has been extended by 200,000 hectares. Potato harvesting is underway in all parts of Belorussia; mechanized detachments have now completed harvesting on more than 50,000 hectares. (2230 GMT)

[9 Sep 83] Kazakhstan is continuing procurement of fodder. Ten oblasts have overfulfilled their annual plan for hay procurement. Throughout the republic, 15.7 tonnes of hay have been procured. (0000 GMT)

The cotton harvest is progressing in Tajikistan. Farms in the norther Leninabad Oblast are now harvesting, following the Vakhsh Valley farms. More than 26,000 tonnes of raw cotton have so far been delivered to processing plants. The more valuable fine-fiber varieties of cotton are now being harvested. (0800 GMT)

Farmers of Latvia and Moscow Oblast have fulfilled socialist obligations for sales of grain to the state. Farms in Latvia have sent 312,000 tonnes of grain to grain reception points and overfulfilled the plan for wheat sales. Farms of Moscow Oblast have sent 250,000 tonnes of grain to reception points. The Ulyanovsk sugarworks has begun its new working season. Today the first 100 tonnes of production were sent to consumers. Following partial reconstruction over the summer its capacity has significantly grown. The good harvests of sugar beet grown in Ulyanovsk Oblast and also in neighboring farms of Chuvash ASSR and Tatar ASSR suggest that enterprises and sugarbeet farmers will not only meet the plan for sugar production but also cover the debt of past years. (1530 GMT)

Ryazan Oblast: Sowing of winter grain has been completed; rye and wheat occupy almost 400,000 hectares. Vigorous shoots have now appeared in the fields. (1750 GMT)

[10 Sep 83]

Kuban farmers have delivered 3 million tonnes of grain to procurement points. Corn and rice are now being harvested. (1230 GMT)

Altay Kray has already threshed 2.5 million hectares of barley, oats and wheat, which is 60 percent of all cereals. Chita Oblast: The autumn fieldwork has arrived. Trans-Baykal operators have to harvest grain crops and pulses from more than 1 million hectares. Procurement of potatoes and vegetables is also underway. Tomsk Oblast: specialists estimate that the average potato crop is 120 quintals, which will fully satisfy the needs of the population of the oblast. Osh Oblast, Kirghizia: Selective cotton picking has started. Picking is being done by hand at the moment: preparations for machine-picking are under way. (1530 GMT)

MAJOR CROP PROGRESS AND WEATHER REPORTING

MEASURES FOR REVIVING FROST-DAMAGED CROPS IN KIRGIZSTAN

Frunze SOVETSKAYA KIRGIZIYA in Russian 20 May 83 p 1

/Article by A. Savitakhunov, Minister of Agriculture for Kirghiz SSR:
"Reviving Damaged Crops As Rapidly As Possible"/

/Text/ Having joined in the national movement for the successful implementation of the Food Program, the agricultural workers in our republic are mobilizing all of their reserves for fulfilling the tasks of the 3d year of the five-year plan for the production and sale of agricultural products to the state. They have created fine prerequisites for obtaining high yields. All of the crops have for the most part been planted in well fertilized soil that was plowed in a timely manner in the autumn. The best predecessor crop arrangements were established for the row crops, especially the technical crops. This year the spring sowing operations were begun 2 weeks earlier than usual and they were completed during the best periods. As a result, healthy seedlings were obtained for the grain and vegetable crops and for the corn and perennial grasses. By the end of April the plantations of sugar beets, cotton and other technical crops were in fine condition.

At the same time, the agricultural workers are encountering serious difficulties this year. In late April and early May, driving rainfall and hail caused serious damage to the crops in Osh Oblast. Considerable areas of cotton and grain, forage and vegetable-melon crops sustained damage. Kolkhoz members and sovkhos workers in the southern part of the republic undertook extreme measures aimed at resowing and undersowing these crops. They were furnished with a great amount of assistance by all workers throughout the oblast.

Nor did the northern zone of farming in the republic escape the caprices of nature. Frosts which occurred from the 21st to the 23d of May in the Chu River Valley region caused a great amount of damage to the agricultural crop sowings. Similar damage was sustained in Issyk-Kul, Naryn and Talas Oblasts. In the regions of republic subordination, they reached 2-4 degrees and in Issyk-Kul, Naryn and Talas Oblast -- up to 6 degrees in the air.

All of the melon, cucumber and fruit plantings which were in the blossoming stage and which were located in the zone where the frosts occurred perished. Serious damage was inflicted on corn over an area of almost 30,000 hectares,

a portion of which must be resown. Noticeable damage has also been caused to the soybean, sorghum and other crops. In order to revive the damaged crops, the Central Committee of the Communist Party of Kirghizia has undertaken urgent measures aimed at furnishing practical assistance to the farms and rayons. A republic committee was created which, following the frosts, studied the condition of the agricultural crops in all areas and, jointly with the farms, defined a complex of organizational and agrotechnical measures for eliminating their consequences.

Importance is being attached at the present time to ensuring that the leaders and specialists of the oblasts, rayons, kolkhozes and sovkhozes, without the slightest delay, join in the work of implementing the measures outlined. The resowing of the melon crops must be completed with a 2-3 day period. Their growing season is 90-100 days and this means that even with the sowing being organized on an urgent basis the melons will ripen no earlier than mid-September.

At the same time it will be necessary to resow the cucumbers as rapidly as possible. This must be accomplished using moistened and germinating seed. The planting of tomato seedlings must not be postponed for even one day, with the seedlings being taken from densely packed sowings. Vegetable and melon seed is available at the Sortsemovoshch Association. It must be made available on an urgent basis to all farms requiring such seed.

The leaders and specialists must examine in a critical and knowledgeable manner the condition of their sowings of corn and other crops damaged by frosts. It is our opinion that the largest portion of the corn fields will not require resowing. Here it will be necessary to organize increased tending of the plants, introduced raised fertilizer norms, intensify the rates for inter-row tilling, apply herbicides in a timely manner and carry out waterings. The republic's aquicultural organs are obligated to do everything possible to ensure the correct utilization of water and the efficient organization of irrigation operations. Importance is attached to reviving the damaged plants in a more rapid manner and developing their green portion as rapidly as possible. This is the purpose of the mineral fertilizer, especially the nitrogen fertilizers. Ammonium nitrate, urea, ammonium sulphate, liquid ammonia and other forms of nitrogen fertilizer promote the restoration of the green portion of plants.

An additional top dressing should be applied to those sectors where the plants have perished partially and there is no need for resowing. The fertilizer should be applied to the inter-row spacings and also by broadcasting or extensive scattering.

The model norms for nitrogen fertilizers for wide-row sowings of corn, vegetable-melon crops and potatoes range from 45 to 60 kilograms of nitrogen per hectare. In addition, the republic's scientists have recommended that phosphorus fertilizers in the amount of 15-30 kilograms per hectare be applied together with the nitrogen fertilizers in behalf of the vegetable-melon crops and potatoes. On perennial grass sowings to be used for hay or fodder and depending upon the degree to which the plants have perished, 45-60 kilograms of nitrogen and 15-30 kilograms of phosphoric acid should be applied additionally per hectare in the form of a top dressing. This year, damaged wide-row sowings of alfalfa should ideally be given an additional top dressing of phosphorus fertilizers at the rate of 1-1.5 quintals of superphosphate per hectare and 50

kilograms of boron-magnesium fertilizer. It is not recommended that nitrogen fertilizer be applied to wide-row sowings during the year that the seed was obtained.

The fruit crops must be provided with the usual planned top dressing of mineral fertilizer.

A majority of the kolkhozes and sovkhoses, recognizing their responsibility for obtaining high yields, commenced resowing their damaged sectors of agricultural crops immediately following the frosts. The republic's Kirgizsel'khozkhimiya Association organized the priority importing of mineral fertilizer for farms which sustained damage due to the frosts.

The timely implementation by the republic's farms of all of the above-mentioned agrotechnical measures will make it possible to reduce considerably the damage caused by the frosts. This requires first of all a high level of organizational ability, efficiency and harmonious work by the kolkhoz members, sovkhos workers and the farm leaders and specialists of the republic's entire agroindustrial complex.

7026

CSO: 1824/511

MAJOR CROP PROGRESS AND WEATHER REPORTING

HARVEST PROBLEMS IN CHIMKENT OBLAST DISCUSSED

Moscow PRAVDA in Russian 3 Jul 83 p 1

[Article by V. Torskiy, Chimkent Oblast]

[Excerpts] An hourly schedule is being employed for the harvest work at the Kuyuk, Kommunizm, Syrdar'inskiy and Darbaza Sovkhozes and on other farms. More extensive use is being made of the experience of leading workers and the work being carried out by all subunits in the harvesting complex has become more efficient and more organized. This is being achieved not without the aid of the agroindustrial associations. In accordance with their recommendations, specialists of Sel'khoztekhnika are monitoring the correct operation of the machines for the very first time and they are servicing the combines and tractors. A majority of the harvesting-transport detachments are overfulfilling the output norms.

However, the work is not being carried out without certain miscalculations and mistakes. In some areas the combines are not being prepared for operations in a thorough manner. For example, in Algabasskiy and Bugunskiy Rayons some of the combines were not repaired prior to the commencement of the harvest work. Here the reequipping of the threshing floors for receiving large trucks was dragged out.

"Unfortunately, we have encountered obstacles in carrying out our harvest work" stated Nutfilla Zaynutdinov, a brigade leader at the Sovkhoz imeni XXI Parts'yezda, "They were caused by the fact that some of the combines lacked batteries and also by a shortage of the units and parts required for repairing machines in the field. Under our conditions, importance is attached to tilling the harvested tracts of land immediately. And how can this be done if only one out of five Kirovets machines is in operating condition. Nor do we always receive efficient services from the drivers of Motor Transport Enterprise No. 3."

Certainly, with the aid of the oblast and rayon agroindustrial associations and supporting collectives, the principal shortcomings tolerated during the harvest operations were corrected in an efficient manner. But the initial days of the harvest campaign were not very productive. The farms in Algabasskiy and Bugunskiy Rayons are the largest producers of grain in the oblast. And any mistakes and disruptions, when multiplied in terms of the size of the fields, can amount to substantial losses in the crops.

The combine operators in the Turkestan Steppe region, the Keles Valley and in the oblast's foothills regions are obtaining considerably greater yields of grain this year than was the case last year. In addition to a raised cropping power for the fields, the raised return from irrigated fields is also serving to provide an increase in yield this year. As a result of substituting highly productive crops for low productivity ones and including unused lands in crop rotation plans, the area used for corn for grain has been increased by 20,000 hectares and the rice fields expanded. And this represents an increase of 100,000 additional tons of grain as a minimum.

The steppe region of southern Kazakhstan resounds with the rumbling of motors as the grain growers hasten to gather in all of their crops in the interest of supplying the state with more grain. And certainly, they wish to establish a strong foundation for the future harvest.

7026

CSO: 1844/510

MAJOR CROP PROGRESS AND WEATHER REPORTING

PROGRESS IN KRASHODAR GRAIN HARVESTING REPORTED

Moscow SEL'SKAYA ZHIZN' in Russian 24 Jul 83 p 1

[Article by Yu. Semenenko (Krasnodar Kray)]

[Excerpts] The hot June sun has turned the grain fields golden and has accelerated the ripening of spike and pulse crops which occupy 1.9 million hectares in the Kuban. The first to ripen were the winter barley and peas, for which more than 400,000 hectares had been allotted. Practically all farms are harvesting them. In spite of the unfavorable weather conditions a fairly good crop has been raised. Grain growers of Timashevskiy Rayon are conducting the harvest in an organized way and they have also raised a good crop. According to preliminary data, each hectare of spike and pulse crops will produce more than 40 quintals of grain. As everywhere in the Kuban, the grain here is not ripening uniformly and is distinguished by low growth and multiple spikes. This forces specialists to establish differentiated harvesting times and methods for harvesting not only for each field, but even for individual sections of fields. And here laboratory surveillance of the ripening of grain is of invaluable service.

Many kolkhozes and sovkhozes of the Kuban are energetically harvesting the grain. Extensive introduction of the Ipatovo method and the collective contract, better preparation of the technical equipment and better provision of transportation for the sets of equipment all contribute to this. Unfortunately, the first days of the harvest show that time is not valued everywhere and the machine and tractor fleet is not being utilized at full capacity. A number of farms of Krymskiy, Temryukskiy, Kavkazskiy, Vyselkovskiy and several other rayons have still not included some of the reapers and combines in the work. They are not operating because they are in disrepair or because of the disorganization of the managers and specialists. Near the first shop of the largest brigade of the Leninets Kolkhoz in Korenovskiy Rayon we saw eight combines with reapers or pick-up attachments. Here is the Niva of P. A. Makarov and V. Ya. Kudlayev. They said indignantly:

"We cannot go out to the fields because we do not have a belt for the PUN-5 grinder. There is also no grease or diesel fuel. How can we work without them?"

Not far away two more large steppe combines stood idle because of the same reason. Various small problems were eliminated by the crews of combines Nos. 20, 22 and 39. Another machine was not operating because when they started up the motor the stud bolts immediately broke off. The two remaining combines had just been adjusted for harvesting peas.

On that day about one-third of the harvesting machines were operating on the fields. Their drivers are experienced, conscientious machine operators. But the disorganized management impeded their efforts. The same kind of disorganization is being displayed during the first days of the harvest by the managers of several other farms in Korenovskiy Rayon.

The harvesting of barley and peas preceeds the work on the fields that are planted in the main food crop--winter wheat. The time for harvesting it has already come, and now there is no more important task than to utilize technical equipment efficiently.

11772

CSO: 1824/505

MAJOR CROP PROGRESS AND WEATHER REPORTING

SPRING SOWING CAMPAIGN IN KAZAKHSTAN DESCRIBED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 29 Apr 83 p 1

/Article: "Rates and Quality for Sowing"/

/Text/ High rates and quality of work is the slogan of the republic's farmers who have assumed their duties in honor of May Day. As we were told at the Kazakh SSR Ministry of Agriculture, sovkhozes and kolkhozes have performed a bigger volume of field operations than last year. Southern oblasts have sown grain crops much more rapidly, have taken care of winter crops and have fed them. The condition of winter crops is good. Good sprouts of spring grain crops have been obtained everywhere.

Cotton has been placed at the best time and in a good quality manner. Corn for grain is being sown on a mass scale. An area $1\frac{1}{2}$ times bigger than last year is assigned to it this year. Vegetable and potato plantations are being established. Measures are being taken to purchase deficient potato seeds with a view to completely fulfilling the potato planting plan everywhere.

This year the areas planted with soybeans are to be doubled. They are being sown on most specialized farms. The establishment of plantations of sunflowers for oil seeds has begun in Semipalatinsk Oblast.

Farmers in West and East Kazakhstan have picked up the baton of the sowing campaign. All the methods of the soil protective farming system are applied here, as in northern oblasts.

Whereas the southern rayons of Uralsk and Semipalatinsk Oblasts are completing the sowing of barley, northern rayons are only embarking on it. The first fields have been occupied with grain crops on Aktyubinsk and East Kazakhstan sovkhozes and kolkhozes.

The sowing of corn for silage and alfalfa is being expanded. Wheat grass, Sudan grass, other perennial and annual grass and fodder melon and root crops are being placed on big areas.

On most farms field operations are being carried out in two shifts. Agronomic services have determined their technology of operations for every field. The good servicing of machines in fields contributes to the highly productive labor of machine operators. Associations of the State Committee for Supply of Production Equipment for Agriculture, which have formed a big number of mobile shops, help links of adjuster-foremen.

In the republic spring crops have been placed on more than 2.5 million hectares--one-third more than at this time last year. Grain crops have been sown on more than 1.8 million hectares.

Virgin-land farmers have successfully fulfilled the first stage in field operations. They have retained moisture in fields at the best time.

11,439

CSO: 1824/426

MAJOR CROP PROGRESS AND WEATHER REPORTING

SPRING SOWING OPERATIONS IN KAZAKH SSR REVIEWED

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 May 83 p 1

/Article: "Decisive Days of the Sowing Campaign"/

/Text/ The farmers in six of the republic's northern oblasts are sowing grain crops on their third million hectares. We have been informed by the Ministry of Agriculture for the Kazakh SSR that the maximum rates have still not been achieved. This is partly associated with the late appearance of the seedlings of wild oats. The operations concerned with pre-sowing cultivation and sowing are being carried out as part of an overall complex of work. In a number of oblasts the operational rhythm has been disrupted by rainfall.

In recent days fine rates have been achieved by the farmers in Kustanay Oblast, who planted grain crop seed on 310,000 hectares. The sovkhoses and kolkhozes in Pavlodar Oblast are adhering to their schedules. However, in these and other northern oblasts the sowing work must be accelerated in order to complete the planting of wheat, as called for in the zonal farming systems, by 25 May.

An effective aid is the watch method of work, which is being employed extensively on many Kustanay farms, and also collective contracts and efficient servicing of the sowing complexes.

Each year a majority of the northern oblasts sell four fifths of all of the strong and valuable wheat shipped to the granaries to the state. This year the virgin land workers have an opportunity to reinforce and surpass the results already achieved. Wheat is being grown at the sovkhoses and kolkhozes on autumn plowed land that was turned over with sweeps and on fallow land. The moisture supplies in the soil are considerably greater than those for last year.

The republic has been allocated one and a half times more mineral fertilizer than has been the case in the past. Fine seed is being sown. The virgin land workers are expanding considerably their sowings of new and more productive varieties of grain crops, with a third of the grain fields being made available for them.

Special control must be exercised over the quality of the seed. Incidents have come to light revealing how some machine operators, in their pursuit of high

production levels, have allowed waste and spoilage to take place. The leaders and party organizations of farms and the people's patrols have intensified their control over the work being carried out. In all areas the sowing work is being carried out only during the daytime. The competition for awarding the badge of quality to each field is increasing in scope.

Approximately 7 million hectares -- almost one third of the overall area in the republic -- are occupied by grain and pulse crops (excluding corn).

7046

CSO: 1624/430

MAJOR CROP PROGRESS AND WEATHER REPORTING

COLD SPELL IN KAZAKHSTAN DISRUPTS AGRICULTURAL WORK

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 24 May 83 p 1

[Article by KazTAG correspondent: "In Defiance of the Element"]

[Text] Alma-Ata, 23 May. "It seemed as though winter returned to the expanses of Karaganda, Dzhezkazgan, Tselinograd, East Kazakhstan, Semipalatinsk and a number of rayons in Pavlodar and Taldy-Kurgan Oblasts during the past days-off. In a few minutes the air temperature dropped by 20 to 22 degrees, that is, from +15-17 to -8. The sharp temperature drop was accompanied by abundant snow falls. About 1 month's norm of precipitation fell in some rayons during 1½ days," said G. M. Bondar', chief of the Alma-Ata Weather Bureau of the Kazakh Republic Administration of Hydrometeorology and Environmental Control. "Cold air masses moving from the Northern Arctic Ocean became the source of the rare weather anomaly. A rapid aggravation of atmospheric processes occurred when they encountered warmer flows."

The warning transmitted to farms 7 to 8 hours before the sharp temperature drop helped rural workers to begin the preparation for the encounter with the element in advance. However, it was difficult for them to cope with the complex task with their own forces. Sowing operations were in full swing and a significant number of farm animals had already been transferred to natural pastures. For example, in Karaganda Oblast located in the center of the element about 1 million sheep and more than 300,000 head of cattle had to be returned to heated barns. And this under conditions when many flocks and herds were 30 to 40 km away from livestock complexes.

Volunteers from industrial centers came to the farmers' aid and thousands of motor vehicles and tractors with trailers were dispatched. They transported animals to barns and conveyed feed and water. Special mobile brigades restored wind-damaged electric transmission, communication and supply lines and ensured a regular transportation traffic. Staffs for the control of the element coordinated the course of operations.

Now life in oblasts gripped by the arctic cyclone is entering a normal course. However, weather forecasters promise a recurrence of similar processes here in a few days. Therefore, livestock breeders do not rush to return flocks and herds to spring pastures. Grain growers, for whom the bad weather has increased soil moisture significantly, try not to overlook the conditions favorable for the establishment of the harvest. They have embarked on the sowing of grain crops with increased energy.

MAJOR CROP PROGRESS AND WEATHER REPORTING

SPRING WHEAT CULTIVATION CONSIDERATIONS IN TURGAY OBLAST

Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 May 83 p 1

[Article by V. Savel'yev, Turgay Oblast: "Wheat of the Turgay Fields"]

[Text] The sowing of grain crops is being carried out in an organized manner throughout the oblast. Each day seed is being planted on tens of thousands of hectares. A fine example is being set out on the spring fields by the machine operators of the brigade headed by V. Butym of the Turgay Sovkhoz-Technical School, the brigade which initiated the use of collective contracts on an extensive scale.

The followers of this brigade are using their time well. Local cost accounting procedures are now being employed throughout the oblast by approximately 80 tractor and field crop production brigades. High quality operations and high productivity characterize the work being performed by the collectives headed by member of the Central Committee of the Communist Party of Kazakhstan A. Inkebayev of the Tersakanskiy Sovkhoz, laureate of the State Prize of the USSR of the L'vovskiy Sovkhoz, record-holder for grain crop cropping power A. Mamenchuk of the Krasnyy Zaporozhets Kolkhos and many others.

The virgin land workers in Turgay Oblast are devoting special attention to the cultivation of the principal crop -- spring wheat. Its baking qualities are exceptional.

The proportion of strong and valuable wheats with regard to the overall volumes of grain procurements is constantly increasing. According to data supplied by the Grain Products Administration, it amounted to 93 percent last year. The state is supporting the desire on the part of the virgin land workers to raise the quality of their grain. In 1982 the oblast's farms earned 4.17 million additional rubles as a result of various bonuses added on to the procurement prices.

In commenting upon this fact, the deputy chief of the Grain Products Administration Ye. Golovchanskiy noted that the material stimuli had increased even more. The procurement price for grain was raised on 1 January. For the majority of rayons in Turgay Oblast, it was raised by 11 rubles per ton of soft wheat. Thus the amounts paid out in the form of additional payments for quality will be greater.

The food program calls for an increase in the yields of high-value grain. This year, for example, the overall volume of strong wheat procurements in the oblast must amount to not less than 980,000 tons and that for durum wheat -- 100,000 tons.

Approximately 2 million hectares have been set aside for wheat here. The oblast's leading regionalized variety will be the standard soft wheat -- Saratovskaya-29.

"As yet it has no competition on the fields in Turgay Oblast" stated the chief agronomist for the oblast's agricultural administration N. Nurmukhambetov, "The principal tracts have been set aside for its use. This year some northern sovkhozes are sowing the promising Tselinnaya-21 variety. It ripens slightly later than Saratovskaya, but is not inferior to it in cropping power. Thus it makes sense to include it in crop rotation plans, based upon use of the technology adopted for the oblast. We are also cultivating two varieties of durum wheat. However, Khar'kovskaya-46 is gradually being replaced by Bezenchukskaya-139, which was regionalized this year. The sowing areas for durum wheat will be increased in all areas this year. During the next few days its seed will be planted on 50,000 hectares."

It is by no means an easy task to cultivate high quality grain in Turgay Oblast. The atmospheric humidity during the growing season in the principal farming zone does not exceed 50 percent even during the most favorable years. And quite often it drops to 25 percent during high temperatures. The effect of nearby desert sands is clearly felt in the central rayons. At times, the warm flow of air from these sands even penetrates deep into the northern part of the oblast.

The field crop growers are striving to raise the low fertility of the local soils using mineral fertilizers and organic materials. The region is extremely poor in natural resources. For example, the sub-zone of the southern chernozem soils encompasses the edge or approximately 5 percent of the overall area of arable land. One fourth of the suitable land is of average quality and the remainder -- lower than average in terms of the nutrient supplies available for the plants.

Moreover, the quality of the harvest is dependent not only upon the climate. It is directly associated with the level of development of farming. Here are some examples. Last year the Sovkhoz imeni Gertsen supplied 23 percent of the standard wheat grain harvested. The grain growers of the Zhanyspayskiy, Vostochnyy and some other farms sold a good portion of their crops without bonuses. Analyses revealed that their grain possessed the required baking qualities but was weedy. The standards for controlling the presence of wild oats are especially strict. If the percentage of impurities is more than 2 percent, no additional payments are made.

Thus the pre-sowing cultivation of the land is being carried out in a very thorough manner in Oktyabrskiy, Yesilskiy, Kiyminskiy, Chaksynskiy Rayons. Active use is being made of BIG-3 harrows and in especially dangerous areas -- shallow plows. The campaign to improve the quality of the grain has already commenced.

The operational experience of the brigades headed by Hero of Socialist Labor N. Kurilenko and holder of the Order of Lenin V. Goncharuk at the Sovkhoz imeni Ushakov can serve as a permanent school for leading experience. Almost all of the crops from their fields are shipped directly to the elevators without thrashing floor processing -- this underscores a high production culture and also the degree to which the land is protected from weeds.

But what about seed production? Here again there are many reserves for increasing the yields of strong and durum wheats. The testing of these wheats is carried out at the oblast's strain testing station. Its tracts are dispersed among four of the oblast's rayons.

"And we also carry out sowing work" stated the acting director of the station V. Borodin, "This year we are planting and testing 34 varieties of spring wheat, eight of which are durum wheats."

Our attention has been drawn to Saratovskaya-55. The Oktyabrskiy GSU [State Strain Testing Station] obtained from a fallow field a cropping power that was greater by 4-5 quintals than the usual yields, when wheat is grown as a single-crop system. We still consider Bezenchukskaya-139 to be the best of the durum varieties.

A vital problem of the farmers in Turgay Oblast involves the selection and introduction of wheat varieties which are productive under local conditions. Nevertheless, durum varieties occupy only a small proportion -- not more than 5 percent -- of the overall proportion. The specialists view this as the reason for the Bezenchukskaya and Kharkovskaya varieties being inferior to soft wheats in terms of cropping power by 2-3 quintals; they are more susceptible to damage by pests. In order to protect durum wheat from pests, deficit fallow fields must be made available for it. And this, notwithstanding the increase in additional payments, is not always profitable. It is still more profitable to cultivate Saratovskaya-29. The plant breeders must obviously concentrate their efforts on ensuring that the farmers in the virgin land oblasts are provided with durum wheat varieties which are more adaptable to local conditions.

The work out on the spring fields is in full swing. Thousands of individuals are devoting knowledge, experience and industry to the task at hand. This will result in the production of strong Turgay grain.

7026

CSO: 1824/430

MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

MOISTURE RETENTION--Kustanay, 25 Apr--The fields have awakened. Tractors have appeared on them. Selective moisture retention has begun. The area sown with spring crops and grass in the oblast exceeds 6.5 million hectares. In order to retain moisture maximally, machine operators prize every hour and try to carry out operations during maximally short periods. High rates have been adopted from the first days. Farmers in Semiozernyy, Tarancvskiy and Komsomolskiy Rayons take first place in the socialist competition. In all about 11,000 units will be engaged in moisture retention. They will cultivate no less than 930,000 hectares daily. /By I. Puzyrev/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 26 Apr 83 p 1/ 11,439

SOWING OF GRAIN CROPS--Kustanay Oblast--Farms in Kazakhstan's biggest granary--Kustanay Oblast--have begun a mass sowing of grain crops. Its grain field totals more than 4 million hectares. Sowing is carried out by several thousand units. In contrast to past years links and brigades transferred to the new organization of labor--the collective contract--will now engage in the cultivation of fodder, grain and hulled crops, vegetables and potatoes everywhere in the oblast. More than 700 such cost accounting subdivisions have been established here. For many of them the sowing campaign is the first test. /By V. Vedenko/ /Excerpt/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 17 May 83 p 1/ 11,439

SOWING OF PERENNIAL GRASS--Kustanay (KazTAG)--The sowing of perennial grass has been completed on the oblast's farms. The share of leguminous crops--sainfoin, sweet clover and alfafa--has been doubled in their total area. The Viktorovskiy Sovkhoz shows an example in the utilization of fodder land. Perennial grass occupies 11,000 hectares here. A mixture of wheat grass, awnless brome grass and sainfoin has been sown again on about 1,500 hectares of cultivated meadows this year. A mixture of oats and barley has been undersown on 650 hectares. Annual grass is being sown on all the oblast's farms. Together with winter rye it will occupy 330,000 hectares. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 14 May 83 p 1/ 11,439

COMPLETION OF WHEAT SOWING--KazTAG--Competing for a successful fulfillment of the decisions of the May and November (1982) Plenums of the CPSU Central Committee and for an increase in the contribution to the realization of the country's food program, grain growers in North Kazakhstan Oblast were the first among the republic's virgin-land oblasts to complete the sowing of wheat during optimum periods. The basic food crop has been placed on the entire area

exceeding 1 million hectares, as envisaged by zonal farming systems, in 10 days--from 15 through 25 May--with observance of all agricultural engineering requirements. On every second hectare wheat has been placed on fallow and as a second crop after fallow, after corn. On all fields mineral fertilizers have been applied together with seeds to rows. Only first- and second-category seeds of strong and durum varieties have been placed in soil. The areas sown with the almaz durum wheat have been expanded considerably. The oblast's farmers have transferred units to the sowing of barley and oats, which are also to be placed during the best agricultural engineering periods and in a high-quality manner. /Excerpts/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 27 May 83 p 1/ 11,439

COST ACCOUNTING MECHANIZED BRIGADES--Mamlyutskiy Rayon, North Kazakhstan Oblast--"We have begun to prepare ourselves for the future harvest in winter," M. Kuz'min, first secretary of the Mamlyutskiy Rayon Party Committee, says. "Twofold snow retention has been carried out on the entire area of arable land totaling 177,000 hectares. Organic fertilizers have been carted out to fields. All the seeds of spring crops have been brought up to the first- and second-category of sowing standards. A total of 360 machine operators have been trained at courses on farms, which will ensure a two-shift operation of equipment. We have promptly developed a set of agricultural methods acceptable for each specific farm, brigade and link and have thought out patterns for the placement and alteration of crops, methods of soil cultivation and sowing periods. Cost accounting mechanized brigades have been established for the first time on all the rayon's 12 farms. In fact, we are changing over to the organization of cost accounting in the entire farming sector." /By A. Raysh/ /Excerpt/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 14 May 83 p 1/ 11,439

COLLECTIVE CONTRACT--Sovetskiy Rayon, North Kazakhstan Oblast--Situation reports on the course of sowing and on 24-hour competition results are now placed on the table of V. A. Savchenko, first secretary of the Sovetskiy Rayon Party Committee, everyday in the morning. The tasks facing the rayon are considerable--to gather 17.1 quintals of grain per hectare on an area of 164,000 hectares of grain crops. Owing to two extremely dry years, farms owe about 1 million poods of grain to the state. Therefore, the rayon's farmers have now decided to exceed the planned indicators and to deliver more than 9 million, not 7.7 million, poods of grain. The prerequisites for the fulfillment of this plan exist. A total of 300 sowing units operate on the rayon's fields now. All of them are staffed with two-shift machine operators. More than 50 brigades and links have now been transferred to the collective contract. It has been decided to complete the sowing of spring crops in 100 work hours. Everywhere the rates of work are higher than the rates during past years. Success is determined by the good labor organization, reliable technical equipment and skill of grain growers. /By A. Raysh/ /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 18 May 83 p 1/ 11,439

SPRING FIELD OPERATIONS--North Kazakhstan Oblast--The sowing of early spring crops has begun in the oblast at shock rates. Taking advantage of the warm days, farms in Sergeyevskiy and Mamlyutskiy Rayons place seeds in soil on several thousand hectares every day. Sovkhozes and kolkhozes in Timiryazevskiy, Sokolovskiy and Bishkul'skiy Rayons have expanded potato planting. This work

will be completed here in 3 to 4 days. The competent utilization of equipment, two-shift work of machine operators and introduction of the collective contract contribute to success on the spring field. More than 400 brigades and links have now organized their labor in a new way. Fulfilling the terms of agreements, farm managers have provided farmers with the necessary equipment, fertilizers and herbicides. Quality has become the basic criterion of the evaluation of work in spring sowing for contract collectives. After all, the end result will depend on it. The oblast's farmers have now decided to gather a 100-pood grain harvest per hectare. /By A. Raysh/ /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 15 May 83 p 1/ 11,439

INTENSIVE GRAIN VARIETIES--Petrovsk--North Kazakhstan farmers have completed the sowing of the omskaya-9 wheat, which has replaced bezenchukskaya-98 on all the oblast's 150 farms. Preference is given to the new variety, which occupies almost one-third of the wheat field--300,000 hectares--because it is more productive by 3 to 4 quintals. The transition to intensive grain varieties is the main feature of this sowing. Sizable areas have been allocated for the altayka wheat and tselinnyy-5 and donetskiy-8 barley. The two-shift work of machine operators and group utilization of equipment help to cope with the sowing during the best period and in a good-quality manner. Grain growers working according to the collective contract attain excellent results. Almost 1/2 million hectares of arable land have been assigned to them. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 24 May 83 p 1/ 11,439

STRONG WHEAT VARIETIES--Having expanded the competition for a successful fulfillment of the decisions of the May and November (1982) Plenums of the CPSU Central Committee and for an increase in the contribution to the realization of the food program, farms in the republic's biggest granary--Kustanay Oblast--completed the sowing of wheat during the best agricultural engineering periods and in a high-quality manner, occupying more than 3 million hectares with it. In an attempt to ensure a stable growth of production of wheat of strong and valuable varieties, the oblast's grain growers carefully fulfilled all the methods of the soil protective farming system. A considerable area of wheat was placed on fallow and on the fall-plowed area, which was plowed only with antierosion implements. More moisture than last year was accumulated in soil. Having concentrated equipment in big detachments, machine operators jointly carried out presowing cultivation and seed placement in two shifts. Sowing was carried out with the slogan "A Badge of Quality for Every Field!" Mineral fertilizers were applied together with seeds to rows on an area of more than 2 million hectares. Barley, oats and other crops are now sown at high rates and in a high-quality manner in the oblast. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 27 May 83 p 1/ 11,439

WATCH METHOD OF WORK--By yesterday farmers in Kazakhstan's northern oblasti have sown one-half of the wheat field--more than 5 million hectares. Despite the frequent rain and wet snow, which the changeable weather every now and then brings to grain growers, seeds are placed in soil precisely during the scheduled periods. The competition of machine operators, the watch method of work and the use of machines even at night contribute to this. /Text/ /Minsk SEL'SKAYA GAZETA in Russian 22 May 83 p 1/ 11,439

NEW REGIONALIZED WHEAT VARIETIES--Alma-Ata--Concerned about an increase in the productivity of the grain field, virgin-land farmers are actively introducing highly productive, new varieties. They have completed the sowing of wheat of medium-late ripening periods. The new regionalized varieties--omskaya 9, tselinnaya 21 and karagandinskaya 2--occupy 3 million hectares--one-fourth more than last year. The productivity of the new settlers of the grain field is 1½ to 2 quintals higher than that of saratovskaya 29. It is very important that these wheats are resistant to lodging and their grain possesses high baking qualities. It has been decided to increase the share of the new wheats in total crops on virgin land to 35 percent. Durum wheat varieties have also proved their value with high harvests. The areas sown with them are doubled. More than 100 specialized farms and scientific institutions engage in seed breeding in the republic. This year, in addition to wheat, they have prepared seeds of valuable barley, millet and buckwheat varieties for sowing on more than 1 million hectares. Now more than one-third of the grain field--much more than what has been planned--is allocated for the new settlers of Kazakh virgin land. /Text/ /Ashkhabad TURKMENSKAYA ISKRA in Russian 21 May 83 p 1/ 11,439

SHORTENED SOWING PERIOD--Tselinograd Oblast--This spring has been such that it has been necessary to take into account literally the peculiarities of each field. Allow me to cite just one example. Our sowing period -- 15-25 May -- was developed some time ago. The working plans for the sowing campaign were arranged based upon these dates. But whereas the upper limit of this period was firm, as the saying goes, it was found useful to change the lower limit under definite conditions. Moreover, great importance is attached to just 1 day, with 2-3 days being decisive. The need for correcting the commencement of the work arose this spring owing to a delay in the germination of the wild oats -- a weed which causes great damage to a crop. The initial days of our sowing campaign turned out to be very warm and this promoted the rapid germination of the wild oats. Thus, for example, a "delay" of 2 days can prove to be extremely useful. This makes it possible to destroy the weed. But in such cases the sowing periods are shortened even more. /by V. Dombrovskiy/ /Excerpt/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 21 May 83 p 1/ 7026

GRAIN CROP SOWING COMPLETED--In carrying out the decisions handed down during the May and November (1982) Plenums of the CPSU Central Committee, the republic's sovkhoses and kolkhoses completed sowing their spring grain crops during good agrotechnical periods and in a high quality manner. This year these crops have been planted on 23 million hectares. The principal food crop -- wheat -- has been planted on almost 16 million hectares. More than two thirds of this area has been sown in high quality seed for strong and durum varieties. For the very first time, mineral fertilizer has been applied to the drill rows during sowing on 8 million hectares. The successful carrying out of the work was promoted by the highly productive group utilization of machines, the extensive introduction of progressive technologies and new forms for labor organization and wages. Anti-erosion stubble sowing machines, cultivators and non-mouldboard implements have been employed extensively on the fields of the farms. Healthy seedlings have already appeared on many of the tracts. Having completed their sowing of spring grain crops, the republic's agricultural workers are making every attempt to tend the crops during the best periods and on a good agrotechnical level. At the same time, they have commenced turning over the fallow and they have actively joined in procuring feed for public animal husbandry. The workers attached to the agroindustrial complex, while actively participating in the national socialist competition, are striving to obtain high yields for all of the agricultural crops during the third year of the five-year plan, to produce and sell a maximum quantity of grain to the

state and to make a worthy contribution towards implementing the food program and the decisions handed down during the 26th CPSU Congress and the 15th Congress of the Communist Party of Kazakhstan. /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 2 Jun 83 p 1/ 7026

CHANGING CONDITIONS--Vishnevskiy Rayon, Tselinograd Oblast--The farmers are aware that each year is different than the previous one. Thus the task of the grain grower consists of taking this fact into account to the maximum possible degree in behalf of the future harvest. For herein lies his expertise. Nor is this spring an exception. The virgin land workers pin their hopes upon the soil have a good supply of moisture. Importance is attached to ensuring that this moisture is employed in the best possible manner in behalf of the crop. Therefore we strive to have all of the brigade leaders and machine operators devote a maximum amount of attention to the peculiarities of each field during the sowing operations. Moisture is available in the soil. It can be retained by means of early spring harrowing. However, it should be borne in mind that the upper soil layer may dry out prior to the commencement of sowing. Thus it is important for the seed to be planted deeper, in the damp layer. But in such instances another danger arises: if for one reason or another the wild oats were not completely destroyed, then they will sprout earlier than the wheat and cause much damage. Thus the pre-sowing tilling of the soil must be carried out in an especially thorough manner. An unforeseen event took place at the very height of the sowing campaign. A powerful cyclone passed over the virgin land, bringing with it a cold snap and snow. This caused the situation to change and it required substantial corrections to the work plans. As a result of droughts which have occurred in recent years, the sovkhos is in debt to the state in terms of grain procurements. This year the farm's workers have undertaken the task of not only selling the planned amount of grain to the state but also of paying off a maximum possible portion of their debt. /by A. Zaver/ /Excerpts/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 27 May 83 p 1/ 7026

GRAIN PLANTING--More than half of the area of grain crops has been planted by the farms in Uralsk Oblast. The rates of work are high: during a day Odesskiy-36 barley and Saratovskaya-42 wheat were planted on an area of 100,000 hectares. The first to plant the spike crops on all the fields at the best times and with high quality were the farms of Furmanovskiy, Dzhangil'dinskiy and Urdinskiy rayons. The quality of the work is under the special control of the agronomical services of the kolkhozes, sovkhoses and the rayon agro-industrial association. For the first time the farmers have cultivated all of the arable land with subsoil tillers, and most of it has been planted with stubble seeders. The seeds are being placed in moist soil. Many farms are applying mineral fertilizers in the rows. /Excerpt/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 13 May 83 p 1/ 11772

CORN PLANTING--Turgay Oblast--After a brief cold spell which brought the first spring storms, the warm sunny days returned to Turgay. The soil was well warmed on the areas planted in sunflowers and corn. The machine operators have begun to plant silage crops. Many farms are conducting the planting on areas to which simazin and otrazan have been applied. Almost all of the areas have been well fertilized with organic fertilizers, and mineral fertilizers are being applied everywhere along with planting the seeds. The agricultural chemical service is rendering good assistance to the farmers. /Excerpts/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 13 May 83 p 1/ 11772

FALLOW FIELDS--Turgay Oblast--Many farms of Yesil'skiy Rayon have already completed the plowing of the fallow fields twice. The fallow area here is close to optimal. It is now warm and the rains are bringing up the weeds from all kinds of soil: this is the most convenient time to destroy them, especially wild oats. All the farms are trying to improve the soil with organic and mineral fertilizers. [Excerpts] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 1 July 83 p 1] 11772

WHEAT PLANTING--Reaching first place in the competition for successful implementation of the decisions of the May and November (1982) Plenums of the CPSU Central Committee and the country's Food Program, grain growers of Turgay Oblast, under difficult weather conditions, have planted the wheat at the optimal time periods and they have done it well. It occupies more than 1 million 954 thousand hectares. A good basis has been laid for this major food crop. On 40 percent of the area it has been planted on fallow, as the second crop after fallow and with other of the best predecessors. The areas on which the seeds and mineral fertilizers were placed in the rows at the same time has increased considerably as compared to last year. Grain growers of the oblast are completing the planting of barley, oats, groat crops and vegetable crops at rapid rates. [Excerpts] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 1 June 83 p 1] 11772

PROMISING STRAINS--Pavlodar--One reserve for increasing grain production in the oblast has been the highly productive Omskaya-9 and Karagandinskaya-2 wheats. Machine operators of the southern rayons of the oblast have begun mass planting of them. Experience has convinced the farmers of the advantages of the aforementioned strains which will occupy almost half of the spring grain fields this year. During last year which was arid, as compared to other regionalized strains they produced an additional yield of 4-6 quintals per hectare. The seeds are being planted in well moistened soil. Mineral fertilizers are being applied to the rows. This makes it possible, even under unfavorable weather conditions, to obtain vigorous shoots. They have created 164 comprehensive mechanized detachments. They have considerably more high-powered K-700 tractors and other technical equipment at their disposal than they did last year. Working by the group method on one and a half shifts, the machine operators are exceeding the output norm by almost one-third. They intend to plant the promising strains of wheat everywhere in 3-4 working days. This will help to utilize the moisture accumulated in the soil with maximum effectiveness. [Text] [Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 13 May 83 p 1] 11772

EARLY CROPS--Krasnodar--Farms of the Kuban have completed the harvesting of early grain and pulse crops. The last sets of equipment left the barley and hayfields yesterday. An important stage of the harvest is behind us. On the decreed areas they are beginning to plant after-harvest feed crops and preparing for fall planting of winter grains. [Text] [Moscow TRUD in Russian 12 Jul 83 p 1] 11772

STATE GRAIN BINS--Krasnodar--Grain growers of the Kuban are increasing the rates of sale of grain to the state. Recently 180,000-185,000 tons of it have been arriving at the procurement points each day. And a total of more than 1.5 million tons of grain have been sold. More than 1.1 million tons of it are wheat. There are 840,000 tons of strong and valuable grain. The largest quantity of grain--80,000-110,000 tons has come to the state grain bins from the kolkhozes and sovkhoses of Pavlovskiy, Kushchevskiy, Kanevskiy and Ust'-Labinskiy rayons and the Adygeyskaya Autonomous Oblast. Grain that comes to

the elevators has been cleaned. It is being delivered mainly by large trucks and truck trains that are operating on a 24-hour hourly schedule in the majority of rayons. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 13 Jul 83 p 1] 11772

CREDITED TO COMMITMENT--Maykop--Agricultural workers of Adygeya are successfully selling the grain of spike and pulse crops to the state. More than 200,000 tons of grain have been poured into the grain bins of the homeland, including the food crop, winter wheat, of which more than 180,000 tons has been sold. Workers of Glaginskiy Rayon are conducting the sale in an organized way. They have sent about 52,000 tons of grain to the procurement points. A large contribution to Adygeya grain is being made by grain growers of Koshekhabl'skiy and Shovgenovskiy rayons. Farmers of Maykopskiy Rayon are selling the grain of spike crops in an organized way. The list of farms that has completely fulfilled their commitments is growing. The first to announce this was the Kolkhoz imeni Engels in Maykopskiy Rayon. The sale of grain to the state continues. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 29 Jul 83 p 1] 11772

SOCHI HURRICANE--"My family is vacationing in Sochi. They tell us that there was a severe hurricane there. Is this true or not? I am very worried about my relatives." [V. Smirnov, Kolonna]. The first secretary of the Adlerskiy CPSU raykom in the city of Sochi, A. Maslennikov, answers. Indeed, a tornado did pass through the territory of the rayon three days ago. But I hasten to assure the reader that there were no fatalities. At approximately 1:30 at night on 8 June a water column approached from the direction of the seacoast. It proceeded along the uninhabited shore and moved upward in a narrow strip. Along the road it caused damage to individual buildings and facilities of the poultry farm. This did not halt normal life in the rayon, although it caused a good deal of concern. A staff was created for eliminating the consequences of the elements. [Text] [Moscow TRUD in Russian 11 Jun 83 p 4] 11772

BOTH CULTIVATION AND TOP DRESSING--Krasnodar--The harvesting of spike and pulse crops in the Kuban has "crossed" the equator. Each day the flow of grain from the threshing floors to the elevators increases. At the present time more than 520,000 tons of high quality grain has been poured into the state grain bins, including 250,000 tons of wheat. This is mainly strong and valuable grain. The largest quantity of grain--25,000-40,000 tons--came to the state grain bins from the kolkhozes and sovkhoses of the Adygeyskaya Autonomous Oblast, and Ust'-Labinskiy, Kanevskiy, Kushchevskiy-Pavlovskiy, Dinskiy and Shcherbinovskiy rayons. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 8 Jul 83 p 1] 11772

HARVEST BEGINNING--Belgorod--Self-organized teams began harvesting work yesterday on the fields of the oblast. More than 420 harvest-transport complexes, which have been created in the oblast on the basis of self-organized teams, have prepared carefully for the harvest. Concentrated in each such complex are 8-12 combines which harvest the grain by the group method. And exchange fund of components, sets of equipment and spare parts have been created for repair of the technical equipment on the farms. [Text] [Moscow TRUD in Russian 2 Jul 83 p 1] 11772

ORGANIZED HARVESTING--Belgorod--Farmers of Valuyskiy Rayon, the leaders of the oblast competition, are providing an example of skillful organization of work during the harvest. Here they combine the operations of mowing and threshing the grain, ricking the straw, depositing the seeds and also preparing the soil for winter planting. The work of 30 harvest-transport detachments that have been created on the farms on the basis of self-organizing teams, is coordinated by the staff under the council of the RAPO. [Text] [Moscow GUDOK in Russian 28 Jul 83 p 1] 11772

EFFICIENTLY, SMOOTHLY--Lipetsk--The machine operators of the kolkhozes and sovkhoses of Khlevenskiy Rayon took the combines and reapers out onto the grain fields earlier than usual this year. The grain growers of the kolkhozes and sovkhoses of Khlevenskiy Rayon committed themselves to depositing no less than 22,000 tons of grain into the grain bins of the homeland this year. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 15 Jul 83 p 1] 11772

GATHERING SPEED--Lipetsk--The rates of harvest work are increasing each day in the Lipetsk area. The kolkhozes and sovkhoses of the oblast are mowing grains, threshing the swathes and selling grain to the state. In the front ranks of the competitors are the grain growers of Dobrinskiy Rayon, who have completed the mowing and threshing of peas. The measures that have been taken to prevent losses of the harvest provide for high yields of this valuable protein crop. The first threshings on the kolkhozes imeni Kirov, imeni Nesterov and Krasnyy Oktyabr' amount to 20-24 quintals of grain per hectare. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 15 Jul 83 p 1] 11772

OBLAST LEADERS--Lipetsk--Lipetsk grain growers have deposited the one hundred thousandth ton of grain into the grain bins of the homeland. One of the first in the oblast to report early fulfillment of the assignment and the high socialist commitments for the sale of grain to the state was the Butyrskiy Sovkhoz in Gryazinskiy Rayon. All farmers of the oblast are catching up with the leaders, having resolved to fulfill the first commandment--to complete the sale of grain to the state by 1 August. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 24 Jul 83 p 1] 11772

LARGE YIELD--Lipetsk--A large yield--more than 40 quintals of winter wheat and rye per hectare--has been obtained by the farmers of Kuban' Sovkhoz, who have completed the harvesting of spike crops. They have successfully plans and socialist commitments for the sale of grain to the state. They have deposited more than a thousand tons of grain into the grain bins of the homeland. [Text] [Moscow GUDOK in Russian 28 Jul 83 p 1] 11772

EFFICIENTLY, ON SCHEDULE--Belgorod--Farmers of the oblast have decided to celebrate the 5th of August--the 40th anniversary of the liberation of Belgorod from the German fascist oppressors--with early fulfillment of the plan for the sale of grain to the state. The leading competitors are the farms of Valuyskiy Rayon who have fulfilled the assignment by more than half. Schedules for grain procurements are being met by the kolkhozes and sovkhoses of Volokonovski, Krasnogvardeyskiy, Veydelevskiy and other rayons. Modern work methods make it possible for the farms to conduct the work rapidly and well. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 2 Aug 83 p 1] 11772

FIRST IN THE OBLAST--Belgorod--The competition for high final results in the harvest have brought success to the farmers of Krasnogvardeyskiy Rayon, who fulfilled the plan for the sale of grain to the state ahead of schedule. They deposited more than 44,000 tons of grain into the grain bins of the homeland. Since the first days of the harvest the machine operators of self-organized teams, who have been combined into harvest-transport complexes, have waged a struggle for large threshings. The motto of the grain growers--"not the threshing, but the yield"--has determined the tactics for harvesting work. Division of labor has been introduced in the detachments: one team deals only with mowing the grain, another with picking up and threshing the swathes. This has made it possible to gather the crop in reduced time periods and without losses. Following the example of the leading workers in the oblast the competition is expanding for rapid completion of the harvesting of early grain crops and fulfillment of the plan for the sale of grain to the state. The grain has been threshed on more than 650,000 hectares--this is 90 percent of all the area. More than 600,000 tons of grain have been deposited in the state grain bins--three-fourths of the established assignment. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 4 Aug 83 p 1] 11772

THE FIRST GRAIN--Voronezh--Harvest time is in full swing. After mowing and threshing, the farms of the oblast are selling the grain to the state. High organization and smooth operation of the harvesting complexes have made it possible for Kalacheyevskiy, Pavlovskiy, Petropavlovskiy and Ol'khovatskiy rayons to fulfill the annual plan for tea procurements during the first days of the harvest. They have sent 12,000 tons of the protein grain to the procurement points. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 12 Jul 83 p 1] 11772

FULFILLING PLANS--Voronezh--Voronezh farmers have already deposited more than 1 million tons of grain into the grain bins of the homeland. Among the fore-runners are Novousmanskoy, Kamenskoy and Ramonskiy rayons, which have fulfilled the plan for grain procurements. The farms of Kashirskiy Rayon have stored up seed supplies. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 7 Aug 83 p 1] 11772

VORONEZH BREAD--Voronezh--Voronezh farmers have won a labor victory. Today they sent the millionth ton of grain to the grain bins of the homeland. The greatest contribution to this success was made by the farms of Kalacheyevskiy, Kashirskiy, Paninskiy and Talovskiy rayons--here they are harvesting an average of 24 quintals of grain per hectare. The frequent rains are making the harvest more difficult. A considerable part of the spike and pulse crops have lodged. Under these difficult conditions the machine operators are skillfully maneuvering technical equipment and introducing a 24-hour work schedule for the conveyor "field--threshing floor--elevator." There are 667 harvesting complexes in operation on the fields of the oblast, and party groups have been created in each of them. All the combines have been equipped with fittings for mowing lodged grains. [Text] [Moscow SOVETSKAYA ROSSIYA in Russian 6 Aug 83 p 1] 11772

KURSK HARVEST--Kursk Oblast--To conduct grain procurements successfully and deposit no less than 950,000 tons of grain into the state grain bins--this is the motto with which Kursk farmers are conducting the harvest. By the end of the third 10-day period of July the kolkhozes and sovkhoses of Oboyan'skiy Rayon had sent three-fourths of the planned quantity of grain to the elevator and are persistently struggling to fulfill the first commandment in the next few days. All the teams of the harvest-transport conveyor interact smoothly here, and the flow of grain to the elevator does not stop for a single day. But, unfortunately, these possibilities are not fully utilized everywhere. Interruptions in the harvest-transport conveyor impede grain procurements. Recently workers of the state automotive inspection checked to see how the trucks were being utilized in Fatezh'skiy Rayon. It turned out that on a number of farms the work on the threshing floors begins at 9:00 or 10:00, and it ends early. There are frequent breakdowns of the loading and unloading mechanisms. Hence the idle time on machines and the arrears in the shipment of grain. Similar shortcomings are also encountered in Ponyrov'skiy and Manturov'skiy rayons. Many farms do not practice loading the trucks with grain on schedule. And this is reflected in the work of the grain receiving points: in the busiest time of the day trucks accumulate around them. Frequently these lines are created because of the inefficiency of the procurement workers themselves. Complaints are coming in from Medven'skiy Rayon concerning significant idle time of trucks at the Ryshkov grain receiving point. When the mass arrival of brewing barley began, they did not bother to open up additional unloading points here. Recently the rains have become more frequent. This has caused some people to become disorganized and has impeded the harvesting work in the rates of shipment of the grain. But further delay in the mowing and threshing can lead to large losses. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 31 Jul 83 p 1] 11772

GRAIN DELIVERIES--Kursk--The first to fulfill the first commandment to the state were the kolkhozes and sovkhoses of Belov'skiy, Kurchatov'skiy, Oboyan'skiy, Bol'shesoldatskiy and Dmitriyev'skiy rayons. By the end of the 5-day period of August more than 750,000 tons of grain had been delivered to the grain receiving points--about four-fifths of the plan. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 7 Aug 83 p 1] 11772

FIRST SWATHES--Tambov--The first peas have been mown into swathes in the fields of the southernmost rayon in the oblast, Muchkapskiy. The harvest will not be easy in the Tambov area: because of the recent rains and wind, a considerable part of the grain has lodged. The grain growers are striving to counteract these difficulties with high organization and ability. The farms have created 520 harvest-transport detachments, and the combines and reapers are equipped with fittings for harvesting lodged and high-stalked grains. A large amount of work has been done to mechanize the threshing floors, elevators and grain receiving points. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 15 Jul 83 p 1] 11772

INCREASING RATES--Voronezh--Recently local rains have alternated with hot sunny days in the oblast. This has made it possible to accelerate the harvesting and increase the rates of grain procurements. Grain growers now already have to their credit more than 800,000 tons of grain that has been deposited in the grain bins of the homeland. More and more farms of the oblast

are announcing fulfillment of their first commandment. Entire rayons are coming close to fulfilling the plans: Novousmanskii, Ol'khovatskii, Kalachevskii, Kamenskii and Bobrovskii. They have sold 70-80 percent of the established volume of grain procurements. [Excerpts] [Moscow SEL'SKAYA ZHIZN' in Russian 4 Aug 83 p 1] 11772

HIGH RATES--Belgorod--The harvest of grain crops began 10 days earlier than usual in the oblast. Included in the work are 428 harvest-transport complexes. Four-fifths of them are working under the brigade contract method. Having completing the harvesting of peas, the farmers of Roven'skii Rayon have already mowed about one-third of the early grain crop. The mowing is being conducted at rapid rates by the farms of Valuyskii, Veydelevskii and Alekseyevskii rayons. They have not begun to cut the swathes in half of these rayons. Striving to reduce the time periods for harvesting, many machine operators are overfulfilling production assignments. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 9 Jul 83 p 1] 11772

BELGOROD FIELDS--Belgorod Oblast--These days the harvest is being conducted by hundreds of self-organized teams on the Belgorod fields. Maximally interested in the final results of their labor, they are doing a good deal to harvest the crops that have been raised as rapidly as possible and without losses. And the breakdown of the harvesting conveyor is so frustrating under these conditions. The reason for these breakdowns is the low level of management of harvesting work on the part of local agricultural organizations and the inadequate attention to the contracting subdivisions. For this reason the harvest is proceeding slowly on the farms of Borisovskii and Bugkinskii rayons. Sets of harvesting equipment also stand idle here and they are in no hurry to start up the dryers. On a number of farms of Roven'skii Rayon, because of the impersonal work of the self-organized teams and the inadequate control on the part of agronomists, there are losses of grain. A good deal of grain has accumulated on the threshing floors of Korochanskii and Yakovlevskii rayons, even though the delivery of it to the procurement points is being delayed and the farms are behind in grain procurements. Belgorod farmers have adequate opportunity to harvest the crops rapidly and without losses and to deposit no less than 830,000 tons of grain into the grain bins of the homeland. [Excerpt] [Moscow SEL'SKAYA ZHIZN' in Russian 22 Jul 83 p 1] 11772

20,000-22,000 HECTARES DAILY--Tashkent, 30 Jun--By the end of June, Fergana, Andizhan and Bukhara Oblasts in Uzbekistan were coping very well with the grain harvest. For the republic as a whole, the grain crops had been harvested from 70 percent of the areas. The harvesting work is unfolding in Kashka-Darya, Dzhizak and Samarkand Oblasts. Each day the crops are being harvested here from an area of 20,000-22,000 hectares. [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 1 Jul 83 p 1] 7026

FERGANA OBLAST FIELD WORK--Fergana, 23 Jul--The harvesting campaign has reached the mountainous fields in Fergana Oblast. Each day, more than 180 mechanized teams are mowing and threshing the wheat. At the same time, the land is being plowed and prepared for the sowing of forage crops. First quality grain is being delivered to the state's granaries. [By Sh. Tugushev] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 24 Jul 83 p 1] 7026

4,000 HECTARES OF CORN--Tashkent, 28 Jul--The combines have moved out onto the fields of ripe corn on all farms in Gagarinskiy Rayon. A fine crop has ripened on all 4,000 hectares of the rayon's corn plantation. The golden ear experts are competing to fulfill their obligation -- during the 3d year of the five-year plan, to produce 43,000 tons of the amber grain, an average of slightly more than 100 quintals per hectare. The selective harvesting of corn has also commenced in other southern rayons of Uzbekistan. This summer the collective contract Komsomol youth brigades have vowed to produce more than 2 million tons of corn grain. /By A. Uzilevskiy/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 29 Jul 83 p 1/ 7026

FIRST ALFALFA CUTTING--Termez, 27 Apr--The first cutting of alfalfa is being carried out in southern Uzbekistan. The grasses have ripened 2 weeks earlier than the spring of last year. The tempo of the mowing work is increasing on farms in Angorskiy, Termezskiy, Dzharkurganskiy and other rayons in Surkhan-Darya Oblast. The first cutting is furnishing an average of 50-60 quintals of dry bulk. Many kolkhozes and sovkhoses plan to obtain up to 250 quintals of alfalfa hay from each hectare. /By A. Uzilevskiy/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 28 Apr 83 p 1/ 7026

ALFALFA MOWING RESUMED--Termez--Following a brief pause, the mowing machines have once again moved out onto the alfalfa fields in the republic's most southern rayon -- Termezskiy Rayon. The second cutting of grasses has commenced. The farms in other rayons of the Surkhan Valley have also commenced this work. Here the plans call for 6-7 cuttings of alfalfa to be obtained this year and for more than 200 quintals of hay to be obtained per hectare. /Text/ /Moscow GUDOK in Russian 25 May 83 p 1/ 7026

GRAIN HARVEST COMMENCES--Termez, Uzbek SSR--The harvesting of grain crops has commenced in southern Uzbekistan. The machine operators of the Talimaran Sovkhoz in Angorskiy Rayon were the first to move their combines out onto the fields. The grain growers in the republic's most southern oblast -- Surkhan-Darya Oblast -- must harvest winter grain crops from 20,000 hectares. In carrying out the Food Program, the republic's workers are striving to supply the country with greater quantities of cotton and grain and to raise the return from each hectare. /By N. Gladkov/ /Excerpts/ /Moscow PRAVDA in Russian 25 May 83 p 1/ 7026

WINTER BARLEY INCREASE--Studies which we carried out and the practical experience of leading farms have shown that the feed problem in our Andizhan Oblast can be partially solved by increasing the production of such a valuable forage crops as winter barley. With the correct use of agricultural practices, it furnishes high yields of grain and straw, it ripens early and it makes it possible to obtain a second and equally great yield of corn from the same land. In addition, an early harvesting of winter barley enables the farms to utilize their labor and logistical resources in a more efficient manner. The kolkhozes in Andizhan Oblast are presently sowing winter barley on an area of 3,600 hectares and overall they are obtaining approximately 110,000 quintals of grain and 86,000 quintals of straw, that is, roughly 148,000 quintals of feed units. But these indicators do not reflect the true potential of this crop.

At such leading kolkhozes as the imeni Karl Marks and imeni Dimitrov in Kurgantepinskiy Rayon, 40 or more quintals of grain are being obtained per hectare rather than the average for the oblast -- 30 quintals. In the process, the increased yields have reduced the production cost for producing 1 quintal of grain on these farms from the oblast average of 7.6 to 3.9 rubles. Taking all of these facts into consideration, we are of the opinion that the production of winter barley in Andizhan Oblast should be increased by a minimum of twofold. /By Kh. Karimov, senior economist at the Kurgantepa Production Agricultural Administration in Andizhan Oblast/ /Text/ /Tashkent EKONOMIKA I ZHIZN' in Russian No 8, Aug 82/ 7026

HIGH WHEAT YIELDS--The harvesting of grain crops continues in southern Uzbekistan: wheat has ripened here immediately following the winter barley. The harvesting of the wheat has commenced. This year many brigades are obtaining high yields of this crop, which occupies more than one half million hectares throughout the republic. A typical sign of the season is the expansion that has taken place in the cultivation of grain crops on irrigated land, which furnishes 3-4 times more grain than does non-irrigated land. The areas made available following the harvesting of wheat will be used by the farmers for sowing a second crop -- corn for grain. /Text/ /Kishinev, SOVETSKAYA MOLDAVIYA in Russian 28 May 83 p 1/ 7026

WHEAT SALES TO STATE--Termez, 8 Jun--The Sherabad enterprise has accepted motor vehicles carrying grain of the new harvest from farms in Gagarinskiy Rayon. The virgin land workers were the first in the republic to commence selling wheat to the state. The virgin lands have provided the farmers with generous gifts this year. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 9 Jun 83 p 1/ 7026

PREPARATIONS FOR WHEAT HARVEST--Termez, 27 May--The harvesting of grain crops has entered a new stage in the southern part of Uzbekistan: the wheat has ripened immediately following the winter barley. The wheat harvesting work has commenced. Preparations for harvesting the wheat are being made in other zones of Uzbekistan. The sowings of this crop, which occupy approximately one half million hectares throughout the republic, promise to provide good yields in all areas. All of the elevators and grain receiving enterprises were placed in a state of readiness prior to the commencement of the grain harvesting work. Their number has increased compared to last year. New procurement points have been created in the direct vicinity of the grain fields. /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 28 May 83 p 1/ 7026

OPTIMUM HAYING PERIOD--Tashkent, 28 May--The rain which fell during the month of May has proven to be of great assistance to the grass stands on the republic's non-irrigated tracts of land. The present period is ideal for cutting down the various grasses. The Komsomol of Uzbekistan has joined in carrying out this important work. In response to an appeal made by it, feed procurement detachments consisting of young people have been created in all areas. In Gallyaaralskiy Rayon in Dzhizak Oblast, more than 5,000 young people have joined komsomol youth feed procurement detachments. They have pitched tents in the mountains and foothills. On slopes and in gorges, from morning until night, one hears the ringing of scythes, as the grasses continue to dry out rapidly. /By A. Uzilevskiy/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 29 May 83 p 1/ 7026

BARLEY, WHEAT HARVEST COMPLETED--Tashkent, 29 Jun--The farms of Uzbekistan have completed harvesting their barley and wheat. More than 340,000 tons of grain have already been delivered to the state silos. During the harvest work, thousands of machine operators competed for the purpose of achieving highly productive use of their equipment. Excellent work was performed by the harvesting-transport detachments in Kashka-Darya, Dzhizak, Surkhan-Darya, Samarkand and Tashkent Oblasts. All of the irrigated land made available following the grain harvest was replowed and sown again in corn for grain and silage and in other forage crops. The farmers of Uzbekistan are cleaning their seed and preparing their lands for the sowing of winter grain crops. /By A. Uzilevskiy/ /Moscow SEL'SKAYA ZHIZN' in Russian 29 Jul 83 p 1/ 7026

GRAIN SALES TO STATE--Chimkent Oblast--The centers for operational control over grain shipments at the elevators and large grain receiving points are assisting the motor vehicle operators in carrying out their work in a successful manner. They are summarizing data on the availability of grain, on the equipment workloads on threshing floors and at grain receiving points and on the availability and condition of the motor transport vehicles and each day they prepare hourly schedules for the drivers. The heavily loaded motor vehicle trains travel the shortest routes. "On the eve of the crop harvesting work" stated the chairman of the oblast committee of the Professional Trade Union for Agricultural Workers A. Dzholdasov, "professional trade union activists inspected the readiness of the field camps for carrying out the harvest work. All of the necessary conditions had been created in them for fine rest and recreation for those participating in the harvest campaign. Hot meals are provided three times daily and the supplying of soft drinks has been organized. It is very hot out on the fields -- more than 40 degrees! It is difficult to carry out harvest work under such conditions. But the farmers in Chimkent Oblast are fully resolved to carry out their socialist obligations successfully -- to sell not less than 1 million tons of grain, considerably more than the plan, to the state during the 3d year of the five-year plan. /By V. Gafiatulin/ /Excerpts/ /Moscow TRUD in Russian 1 Jul 83 p 1/ 7026

GRAIN HARVEST COMMENCES--The Chardara farmers were the first in Chimkent Oblast to commence harvesting their grain crops. On suburban lands along the right bank of the Syr-Darya River, the Koksuy'skiy, Yubileynyy, Bairkul' and Chardarinskiy Sovkhozes are harvesting their winter barley. In the near future the harvest campaign will unfold on irrigated tracts where the farms have planted spring crops under a cover of alfalfa. From these areas, following the harvesting of the barley, the farmers plan to obtain two more cuttings of protein-rich alfalfa prior to the end of the summer. Immediately after the Chardara workers, the machine operators in the Keles Valley moved their equipment out onto the ripe grain fields. One hundred and twenty combines, joined together in harvesting-transport detachments, are operating in two shifts. They must harvest grain on almost 20,000 hectares. A fine yield is being obtained by the grain growers at the 40 Let Kazakhskoy SSR Sovkhoz -- 14-15 quintals of grain per hectare. The farms in Saryagachskiy and Leninskiy Rayons are commencing their selective harvesting of winter crops. As the grain crop ripens, the harvest work advances further to the north. This year more than 200 consolidated harvesting-transport detachments and mechanized teams are participating in the harvest campaign. The grain will be transported

using more than 4,500 vehicles from local motor vehicle establishments, kolkhozes and sovkhoses. Despite the fact that the harvest campaign has already commenced, not all of the oblast's combines have as yet been repaired owing to a shortage of spare parts. /By Yu. Livinskiy/ /Text/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 9 Jun 83 p 1/ 7026

HIGH GRAIN YIELD--The harvest campaign is in full swing on the grain fields in Chimkent Oblast -- the most southern oblast in Kazakhstan. The farmers have raised a fine crop: they are obtaining an average of 5 quintals more per hectare than the figure called for in the plan. The harvest work is being carried out by approximately 300 harvesting-transport complexes. For the very first time, more than 1,000 teams are carrying out harvest work in accordance with the non-schedule system. /Text/ /Moscow TRUD in Russian 1 Jul 83 p 1/ 7026

HARVEST IN FULL SWING--"Several days ago we commenced the selective mowing of barley" stated the chief agronomist at the Lengerskiy rayspetskhoz-ob"yedineniye Zh. Tastanov, "And at the present time the harvest work is in full swing. All 21 of our combines have joined in the work. In addition, we are receiving assistance in the form of harvesting units from neighboring farms, where the grain crops have not yet ripened. At the moment there are not quite enough motor vehicles for transporting the grain to the threshing floors. But tomorrow eight machines are to be sent out from the Lenger Truck Enterprise. The combines then will no longer lie idle." This year 3,500 hectares of grain crops must be harvested. The initial yields are gratifying. The barley yield is 18.7 quintals per hectare, with the best fields yet to be harvested. /By S. Melkozerov, worker at the Lengerskiy Rayon PUT' IL'ICHA Newspaper in Chimkent Oblast/ /Excerpts/ /Alma-Ata KAZAKHSTANSKAYA PRAVDA in Russian 26 Jun 83 p 1/ 7026

NEW GRAIN OF KAZAKHSTAN--Chimkent, 18 Jun--The grain fields in Chimkent Oblast occupy almost one half million hectares. Leading agricultural practices and the skilful selection of varieties for each zone have made it possible this year, despite the dry spring conditions, to obtain a fine grain crop almost in all areas. Twelve of the oblast's rayons have already commenced harvesting the grain crops. Fine yields are being obtained by the farmers in Saryagachskiy Rayon, where the locally bred Krasnovodopadskaya-210 variety of winter wheat is being sown in a zone of extremely hard non-irrigated land. On farms in Leninskiy Rayon, where Bezostaya-1 is being sown, the initial yields are on the order of 14-15 quintals of grain. Twenty three hundred combines, 3,000 motor vehicles, all of the repair-technical services and the cultural-domestic services have all been made ready for the work. Carefully thought out measures for completing the harvest in just 10-12 days have been developed on all of the oblast's farms. The farms in Saryagachskiy, Chardarinskiy and Leninskiy Rayons have delivered the first "red wagons" containing the grain of the new harvest. More than 10,000 tons of grain have been delivered to the granaries of the homeland. /By A. Utyaganov/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 19 Jun 83 p 1/ 7026

GRAIN TRANSPORT OPERATIONS--Alma-Ata, 29 Jun--Today the transport workers delivered the one half millionth ton of grain from the new harvest to the elevators and receiving points in southern Kazakhstan. The workers at the procurement enterprises made advance preparations for accepting the heavy-cargo

motor vehicle trains. Hourly schedules have been introduced into operations at 40 of the larger grain receiving enterprises. The access roads leading to the elevators have been improved and additional fencing installed along difficult sectors of the routes. This has made it possible for the transport workers to move 4,000 heavy-cargo vehicles out onto the routes and to employ them in an efficient manner. Each day they transport 50,000 tons of grain. With each passing day the front of the harvest work advances further to the north. The transport vehicles move with it. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 30 Jun 83 p 1/ 7026

EARLY GRAIN CROPS--Chimkent, 8 Jul--The oblast's farms have commenced harvesting their early grain crops. The machine operators at the Syrdar'inskiy, Darbaza and imeni Zhdanov Sovkhozes -- the largest grain farms in southern Kazakhstan -- were the first to move their combines out onto the tracts. The harvest operations are unfolding on the fields of sovkhozes and kolkhozes in the Turkestan Steppe region, the Keles Valley and on the virgin land Kysylkum tract. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 30 Jun 83 p 1/ 7026

GRAIN HARVEST FINAL STAGE--Chimkent Oblast--The harvest operations out on the fields in Chimkent Oblast have reached the final stage. The grain crops have been harvested from the plains and now at night, when the intolerable heat abates somewhat, hundreds of motor vehicles with their repair, dispatcher and domestic services are moving up into the foothill zones. Six rayons have already fulfilled their grain sales plans ahead of schedule and, with no reduction taking place in the tempo, are continuing to ship it to the procurement points. Here it is important to emphasize that these farms have fully satisfied their own requirements for seed and forage grain. The farmers grew their grain under complicated conditions. They were aided by high agricultural practices, the skilful selection of locally bred varieties and by the efficient organization of the harvesting operations. This is precisely what made it possible for the farms in Saryagachskiy Rayon to surpass their plan for selling 38,000 tons of grain. The successes achieved in Lengerskiy, Sayramskiy and Tyulkubasskiy Rayons, where in the foothills each hectare of non-irrigated sowing is producing 23-26 quintals of grain, have been very gratifying. The Kazakhstan grain is being delivered to the granaries of the homeland. /By A. Utyaganov/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 19 Jul 83 p 1/ 7026

NEW WHEAT VARIETIES--The director of the Sovkhoz imeni Zhdanov in Dzhambul Oblast V. Zlobin and the farm's chief agronomist Ye. Yesembekov, during a recent inspection of the land, devoted special attention to the winter crop sowings. The leaders of the sovkhoz were interested in the new Bogarnaya-56 variety of wheat. It was developed by specialists at the Kazakh Institute of Farming. Last summer, for example, which turned out to be unusually hot, many fields burned up owing to a shortage of moisture. But "Bogarnaya" not only endured the heat, but in fact it even produced in the absence of irrigation 21 quintals of grain per hectare. And it was fine grain -- clean, dry and full-weight! In neighboring Chimkent Oblast, the local plant breeders regionalized the Krasnovodopadskaya-210 variety of wheat, which under hard non-irrigated land conditions is furnishing an increase of 4-5 quintals per hectare. This strong and drought-hardy wheat is already being grown on 200,000 hectares, or almost two thirds of the oblast's entire winter crop area. New varieties of

spring wheats, developed by workers at the All-Union Scientific-Research Institute of the Grain Economy in Shortandy in Tselinograd Oblast, are being introduced successfully into operations on the virgin land fields. This includes the Tselinnaya-21 variety the area of which will be almost doubled next year. Tselinnaya-26 and Tselinnaya-60 are undergoing state and production testing. /By E. Matskevich/ /Text/ /Moscow IZVESTIYA in Russian 1 Jun 83 p 2/ 7026

GRAIN DELIVERIES CONTINUE--Alma-Ata, 27 Jul--The farms in Dzhambul Oblast have commenced selling grain to the state. Today motor vehicle trains delivered the initial thousands of tons of wheat to the Dzhambul Grain Products Combine and to the Merkenskiy, Chaldovarskiy, Georgiyevsk, Berlikskiy and other elevators. More than one half of the grain of the principal food crop has been accepted by the procurement specialists with the grades of "strong" and "valuable." The logistical base was well prepared for accepting the grain. Owing to mechanization of the selection of samples, improvements in the grain unloading, transporting and cleaning operations and an increase in the capacities of the storehouses, the capability of the elevators has been expanded by one third. Each variety has been assigned its own storehouse. Dozens of mobile laboratories have been sent out to the sovkhozes and kolkhozes for the purpose of increasing the procurements of high quality wheat and barley. Jointly with the agronomic services, these laboratories will evaluate the grain being received. Commencing with the very first days of the harvest work, all of the procurement enterprises were converted over to an around-the-clock work regime, with the majority of them accepting wheat and barley in accordance with hourly schedules. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 28 Jul 83 p 1/ 7026

GRAIN SALES CONTINUE--Dzhambul, 5 Aug--On the whole, the farms in Dzhuvalinskiy Rayon obtained an average of 22 quintals of grain per hectare from 49,000 hectares of mountain fields. Instead of 40,500 tons in accordance with the plan and 42,000 tons in accordance with the obligation, this made it possible to sell 68,000 tons of wheat and barley to the state. The sale of grain is continuing. /By A. Iseyev/ /Moscow SEL'SKAYA ZHIZN' in Russian 6 Aug 83 p 1/ 7026

CROP DAMAGE FROM RAINFALL--The period of daylight is at its greatest during the month of June. The last month of spring was generous in terms of precipitation. As a result, the amount of moisture available for the agricultural crops turned out to be close to optimum and considerably better than that for last year. However, strong driving rainfall, at times accompanied by snow, caused lodging of the grain crops and perennially sown grasses and also flooding and mud accumulations in the plantings. Frosts which occurred during the fifth 5-day period in May, a rare phenomenon for this period of time, caused great harm to agriculture. This raised the need for the undersowing and resowing of the agricultural crops. In order to reduce to a minimum the results of the unfavorable weather phenomena, the agricultural workers must devote a maximum amount of effort to tending their crops. The abundant rainfall which occurred in the Kenes-Anarkhae region during the third 10-day period in May improved considerably the sprouting conditions for the pasture grasses and also the further formation of the grazing fodder. The summer rainfall is intermittent and does not interfere substantially with the carrying out of the field work. The norm for

precipitation in June is 30-65 millimeters and in the extreme eastern portion of Issyk-Kul Oblast and in the foothills region of the Chu River Valley -- 70-80 millimeters. /by V. Yefimova, engineer-agricultural meteorologist at the Frunze Hydrometeorological Center/ /Excerpts/ /Frunze SOVETSKAYA KIRGIZIYA in Russian 2 Jun 83 p 1/ 7026

GRAIN PLAN FULFILLMENT POSSIBLE--The winter grain crops in Panfilovskiy Rayon have not completely justified the hopes of the grain growers. A portion of them suffered from the May frosts. On the other hand, the spring grain crops planted on non-irrigated land have turned out to be quite good. According to a determination reached by the scientists, a hectare will produce not less than 17-18 quintals. The possibility exists of fulfilling the obligations for the gross yield of grain. This requires the extensive use of the two-stage harvesting method, a shortening of the harvest periods and the harvesting of the crop without losses. /Text/ /Frunze SOVETSKAYA KIRGIZIYA in Russian 28 Jun 83 p 1/ 7026

GRAIN OF NEW HARVEST--Frunze--The busy harvest period in Kirghizia continues to move ever higher up into the mountains. The elevators in Issyk-Kul Oblast -- the republic's grain area -- have accepted the initial motor vehicle trains carrying the grain of the new harvest. The harvesting-transport elements of the kolkhozes and sovkhoses are operating on the basis of a 24 hour schedule. /Text/ /Moscow GUDOK in Russian 28 Jul 83 p 1/ 7026

FLOCKS OF SHEEP RESCUED--Kara-Kuldzha (Kirghiz SSR), 6 Jun--The workers on farms in Sovetskiy Rayon emerged the winners in the battle against the elements. Once again thousands of flocks were moving along the natural border which includes Tushunun, Azhike and Vayga, whereas only 5 days ago they were literally carried by hand down to a lower area. There was no forewarning of the misfortune which occurred on the first summer day. However, by nightfall the wind had brought with it a snowstorm, the likes of which had not been seen in this area at this time of year over a period of several decades. Within a matter of minutes, snowdrifts had accumulated along the natural border where during the summer 200,000 sheep with lambs are maintained. A delay could cause many animals to be lost. An alarm signal was sounded at the imeni Karl Marks, imeni Kalinin and Leninchi-Zhash Kolkhozes, which were located in the vicinity of the calamity. When a column of trucks from the rayon center approached this area, hundreds of kolkhoz workers were waiting for it. But the motor vehicles and tractors were unable to overcome the steep upgrade of the wet road. It was at this point that the people made their way through the snowstorm and the drifts. More than 1,000 individuals, during the course of a day's time, directed the sheep to a lower area. Many of them carried lambs in their arms. Thereafter the animals were loaded onto the motor vehicles and delivered to warm winter sheep pens. In this manner, all of the flocks were saved. /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 7 Jun 83 p 1/ 7026

KIRGHIZ GRAIN HARVEST--Kirghiz SSR--The harvest in Kirghizia does not take place simultaneously in all areas. It is begun first by the farmers in Osk Oblast, thereafter the grain growers in the Chu River Valley region commence their harvest work and only later does such work begin in Issyk-Kul Oblast and in the Tyan-Shan region. This year has been a good one for the grain growers.

In the southern part of the republic, an average of 40-50 quintals of wheat and barley is being obtained from irrigated fields and from non-irrigated land -- more than 20 quintals. The severe winter damaged a portion of the grain crops and yet there is still confidence that the obligations will be fulfilled. The Kirghiz grain growers have promised to obtain an average of 35 quintals of grain per hectare. The chief concern at the present time is that of harvesting the grain crops without losses. This requires the maneuvering of equipment: farms in the upper zone, where the grain crops ripen later, send their harvesting equipment and transport vehicles to the lower zone. Subsequently the harvesting-transport complexes move up into the foothills. The harvest work for the most part is being carried out successfully throughout the republic. But at the same time, inspections carried out by people's controllers have uncovered some vexing blunders. In Panfilovskiy Rayon, for example, many of the combines lacked batteries and following repair work the units were not subjected to running-in. At the Papan Sovkhoz, seven combines turned out to be inoperable prior to the commencement of the harvest work. Grain losses have been tolerated on farms in Bazar-Kurganskiy Rayon. Some leaders, believing that the harvest is a good one, have succumbed to the "virus" of indifference. And it is in vain. A reliable and strong barrier must be erected against losses. /by V. Shirokov/ /Excerpts/ /Moscow PRAVDA in Russian 12 Jul 83 p 1/ 7026

EARLY FIELD OPERATIONS--Przhevalsk--The warm winter hastened the start of field work on the alpine fields of Kirghizia. The field crop growers at the Kolkhoz imeni Karl Marks in Issyk-Kulskiy Rayon have commenced sowing their grain crops. The workers on other farms in Issyk-Kul Oblast -- the republic's chief grain area -- have "programmed" their fields for obtaining a high yield. The seed is being placed in well tilled and fertilized soil /Excerpts/ /Moscow IZVESTIYA in Russian 13 Mar 83 p 1/ 7026

KIRGHIZ BARLEY SOWINGS--The republic's farms completed their sowing of barley on a rapid basis. On kolkhozes and sovkhoses in Osh Oblast, which were the first to open the season of spring field work, ears have already begun to form on the plants and healthy seedlings have appeared on the fields in the Chu and Talas River Valleys. The principal portion of the spring fields on the non-irrigated alpine land is occupied by the locally bred Naryn-27 variety of barley, which is distinguished by a high level of drought hardiness. The Donetsk-8 and Nadya brewing varieties of barley predominate on the irrigated lands in Issyk-Kul and Talas Oblasts. Barley has been sown on approximately one half million hectares throughout the republic. This year the farmers plan to obtain an average of 20 quintals from each hectare of non-irrigated land and 35 quintals per hectare from the irrigated tracts. /Text/ /Prunze SOVETSKAYA KIRGIZIYA in Russian 12 May 83 p 1/ 7026

LIVESTOCK FEED PROCUREMENT

BELORUSSIAN FEED QUALITY, GREEN HARVEST YIELD REVIEWED

Ministry Notes Unsatisfactory Progress

Minsk SEL'SKAYA GAZETA in Russian 17 Jun 83 p 3

[Article: "Accelerate the Tempos, Raise the Quality of the Green Harvest. On the Unsatisfactory Course of Preparation of Feeds in a Number of Oblasts, Rayons and Farms in the Republic"]

[Text] The collegium of the BSSR Ministry of Agriculture has examined the course of the harvest of grasses and preparation of feeds in the republic. It was noted that the practical work of the Feeds, Meadows and Pastures Administration and the Veterinary Main Administration of the BSSR Ministry of Agriculture, the Belorussian Animal Breeding Association, as well as a number of other agricultural administrations of oblast and rayon executive committees and kolkhoz and sovkhos supervisors for the organization of grass harvest, feed preparation and control of fodder quality does not correspond to the demands made. The harvest tempos are inappropriate to the fulfillment in the established period of assigned jobs. Insufficient attention is also given to fodder quality. According to the situation on 10 June, only 27 percent of the hay prepared in Mogilev Oblast was tested, 38 percent of the haylage and grass meal and 72 percent of the silage mass. In Brest Oblast on this date, 69 percent of the hay, 51 percent of the grass meal and 38 percent of the haylage mass was untested. Only 19 percent of the hay, of which only 37 percent was of first class, was investigated in Borisovskiy Rayon; respectively 65 percent and 12 percent of the haylage and 28 percent and 2 percent of the grass meal. Still worse was the situation in Chausskiy Rayon, where this work was actually not carried out, and in many farms of Drozhichinskiy, Verkhnedvinskiy and Khoynikskiy rayons.

Work for the mowing of grasses, preparation of feeds, technological control and the investigation of fodder quality is extremely unsatisfactorily organized at the sovkhoses Avangard of Braslavskiy Rayon and 40 Let Oktyabrya of Krupskiy Rayon and the kolkhoz 1 Maya of Oktyabr'skiy Rayon. Only one-third of the grasses were sowed at, for example, the Avangard sovkhos of Braslavskiy Rayon; only 9 percent of the plan for hay was prepared, 34 percent for haylage and 10 percent for silage. Not one ton of hay was tested in the laboratory.

Administrative fines were imposed on Comrade N. V. Glavatskiy, chief of the Feeds, Meadows and Pastures Administration of the BSSR Ministry of Agriculture and Comrade N. A. Sivodedov, chief engineer of this administration, for unsatisfactory control of the course of grass collection, adherence to technology and the weak introduction into the practice at kolkhozes and sovkhozes of advanced examples and methods of feed preparation.

The chiefs of the Main Veterinary Administration, Comrade N. N. Shvydakov, and the Belorussian Animal Breeding Association, L. Ya. Legkiy, were strictly reprimanded for the low level of work of veterinary and feed laboratories in the investigation of feed quality.

The deputy director of the Agricultural Administration of the Mogilev Oblast Executive Committee, Comrade N. A. Popkov, and the chief of the Department of Feed Production of the Agricultural Administration of the Brest Oblast Executive Committee, Comrade E. I. Lagutin, received reprimands for the lack of provision of reliable control of feed quality. The deputy chief of the Agricultural Administration of the Khoynikskiy Rayon Executive Committee, Comrade D. I. Galagan, was relieved of duty for a lack of organization in carrying out the grass harvest and disregard of the instructions of the BSSR Ministry of Agriculture for the provision of a strict control of feed quality.

Comrade V. N. Gubaryu, chief of the Agricultural Administration of Chausskiy Rayon Executive Committee, comrades L. A. Nesplyak and F. Yu. Tochkar, deputy directors of the agricultural administrations of Verkhnedvinskiy and Drozhichinskiy rayon executive committees, and Comrade T. A. Khomenko, specialist for feed production of the Agricultural Administration of the Borisovskiy Rayon Executive Committee received strict reprimands for negligence in the organization of feed quality control.

The supervisors of certain farms have been reprimanded for admitted mismanagement and an irresponsible attitude to the fulfillment of plans and jobs and a gross infringement of the technology of feed preparation. The Administration for Kolkhoz Affairs of the BSSR Ministry of Agriculture, jointly with the Agricultural Administration of the Gomel' Oblast Executive Committee, has been charged with discussing at a general meeting of the kolkhoz workers the question of the accordance with the occupied position of V. A. Kovalevich, chairman of 1 Maya kolkhoz of Oktyabr'skiy Rayon.

The agricultural administrations of the oblast and rayon executive committees, the Poultry Industry Administration, the Belorussian Animal Industry, the Belorussian Animal Breeding Association, the Belorussian Seed Variety Association and the Administration of Sovkhoz Technical Schools and Agricultural Technical Schools must immediately examine the situation concerning the preparation of feeds and their quality in each kolkhoz, sovkhoz and interfarm enterprise and take measures for a sharp acceleration of the tempos of grass harvesting and the preparation of feeds, primarily hay. Other tasks are: to organize the timely testing of all prepared fodder; to involve in the work

all feed-collecting technology, to organize precisely the work of daytime detachments and teams and units for grass-meal preparation and active-ventilation apparatuses throughout a 24-hour period, to ensure a precise use of technology, to conduct work comprehensively and in any weather. Matters should be arranged so that by 25 June the grass harvest will be everywhere completed with the first mowing.

The Collegium of the BSSR State Committee for Agricultural Technology also examined the work of the departmental enterprises in providing for feed preparation and the readiness of agricultural technology in kolkhozes and sovkhoses for collecting the cereal harvest.

It was noted that a number of rice agricultural technology associations allow serious gaps in providing for the high-productivity utilization of feed-collecting technology in kolkhozes and sovkhoses. The timely delivery of the available spare parts to farms for machine repair is not provided for; an exchange fund of assemblies and units is lacking in sufficient quantity. Timely assistance is not universally given to farms for eliminating deficiencies and carrying out the technical servicing of machines in the field.

The managers of rayon agricultural technology associations V. S. Denisenko of Braginskiy Rayon and V. S. Smirnov of Braslavskiy Rayon received strict reprimands and A. G. Grebenyuk of Goretskiy Rayon was sternly warned for not taking active measures for organizing the preparation of agricultural technology for harvest collection and for lack of energy in the solution of farm claims for feed preparation. The chief engineer of Dobrushkiy Rayon Agricultural Technology Association, S. S. Bondarev, was relieved of his duties for omission from tractor repair with gross infringements of the requirements of the State All-Union Standard and for not taking measures to provide for the quality of technological repair. The chief engineer of the Narovlyanskiy Rayon Agricultural Technology Association, L. N. Leonovich, received a stern reprimand and was ordered to pay one-third of his wages in partial compensation for the damage caused.

The chairmen of the oblast agricultural technological associations, the managers of the rayon agricultural technological associations and the manager of the trust of repair enterprises are to take rapid measures for eliminating work deficiencies. The task is assigned for completing the preparation of agricultural technology for the collection of the cereal harvest by 25 June in the southern rayons and by 1 July in the northern rayons.

Shortcomings Indicated

Minsk SEL'SKAYA GAZETA in Russian 18 Jun 83 p 3

[Article: "To Overcome Lagging"]

[Text] The rayon feed and veterinary laboratories are called upon to carry out the constant monitoring of the quality of prepared feeds. Many of them perform their functions adequately. More than 90 percent of all feeds entering storage was investigated in Chervenskiy, Uzdenskiy, Pukhovichskiy, Kopyl'skiy, Zhlobinskiy, and Narovlyanskiy rayons.

However, a number of the agricultural administrations of rayon executive committees have not organized the requisite monitoring of the work of laboratories, do not give them assistance in providing transport for the selection of feed samples and do not issue strict orders to the kolkhoz and sovkhos specialists that do not present feed samples for analysis on time. For this reason only one-fifth of the prepared hay was tested for quality in Berezovskiy, Beshenkovichskiy, Mioriskiy, Orshanskiy, Polotskiy, Shumilinskiy, Berestovitskiy, Shchuchinskiy, Bobruyskiy, Bykhovskiy, and Gluskiy rayons.

The laboratories of Shklovskiy, Krasnopol'skiy, Orshanskiy and Shumilinskiy rayons commenced the work with a long delay and performed it extremely poorly. The situation has not improved recently. As inspections have shown, in a number of farms basic technological requirements are grossly violated: the crushing of leguminous grasses, the turning of hay and the timely selection of cuttings are not universally carried out. The process of pressing [trambovka] also are infringed, trench loading times are extended, the pressing of hay with a strongly-elevated moisture content is permitted and apparatus for active hay ventilation function unsatisfactorily. Considerable alarm is also occasioned by the fact that work is not properly organized for filling haylage towers with fodder and producing grass meal and cutting. These omissions lead not only to a shortage of certain feed species but also to a sharp decline in their quality.

Three percent of the hay and 11 percent of the haylage tested on farms in Gantsevichskiy Rayon proved to be substandard, respectively 7 percent and 14 percent in Polotskiy, 4 percent and 14 percent in Rogachevskiy and 5 percent and 26 percent in Mogilevskiy rayons. Grass meal should be especially mentioned. As a whole for the republic only 23 percent of this feed is prepared as first class, even less in Brest Oblast at 15 percent and in Gomel at 10 percent. The situation is even worse in individual rayons. For example, 46 percent substandard grass meal is prepared in Buda-Koshelevskiy Rayon, 26 percent in Narovlyanskiy, 29 percent in Goretskii and 62 percent of that investigated in Mogilevskiy.

The most effective method for preparing feeds under variable weather conditions is the production of grass meal and cutting. This work is performed in an organized manner by the kolkhozes and sovkhoses of Pinskiy, Ivanovskiy, Grodnenskiy, Mostovskiy, Smolevichskiy and Gluskiy rayons, in which the annual plan of meal production has already been 45-50 percent fulfilled. At the same time the plans for dried-feed production have been less than 15 percent fulfilled on farms in Zhabinkovskiy, Stolinskiy, Dubrovenskiy, Lepel'skiy, Polotskiy, Rossonskiy, Dyatlovskiy, Ostrovetskiy, Logoyevskiy and Kruglyanskiy rayons.

The main reason for lagging is the poor utilization of drying units. Thus, for example, at the Iskra and Pravda kolkhozes of Buda-Koshelevskiy Rayon they were not operating at full capacity on the day of the inspection due to an irregular delivery of green mass. A two-shift operation of the drying shop had not been organized at the Rodina and Svetlyi Put' kolkhozes of Zel'venskii Rayon; the production of grass meal was not started at all at Bobrovo Sovkhoz of Lepel'skiy Rayon until the end of the first 10 days of June. Of the 12 available units at farms of Polotskiy Rayon, four stand idle for organizational and technical reasons.

The shift output per any one unit remains extremely low. In recent days, only 1.4 tons grass meal were produced per each unit in Brest Oblast, 1.9 tons in Minsk, Vitebsk and Grodno, 2.1 tons in Mogilev and 2.8 tons in Gomel. Only 20-26 percent of the technical capabilities for the production of meal were used since the beginning of the feed-preparation season at farms in Dubrovenskiy, Rossonskiy, Ostrovetskiy and Logoyiski rayons. Neither were there appreciable shifts in the sale of grass flour to the state; the sale reached only 13.2 percent of the plan.

Haylage towers should be used under the special monitoring by the agricultural organs and the State Committee for Agricultural Technology. A fifth of all prepared haylage can be stored in them, making it possible to save about 60,000 tons of feed units from loss. It cannot be accepted that of the 14 towers in the kolkhozes and sovkhoses of Zel'venskiy Rayon, one is loaded, and of the 15 in Polotskiy, two are loaded. There are three haylage towers in technically good condition at the Zarya kolkhoz of Buda-Koshelevskiy Rayon, but the loading of them has not even been started. The kolkhozes and sovkhoses of Tolochinskiy, Smaragovshchinskiy, Oshmyanskiy, Dyatlovskiy, Rechitskiy, Minskiy, Goretskiy and Shirovskiy rayons have not begun loading haylage in the tower storehouses.

Practical interests demand that permanent teams equipped with the necessary feed-harvesting technology and means of transport quickly be created at each farm possessing towers. Interfarm detachments should be urgently created in rayons where it is not possible to equip the farms with motorized feed-harvesting combines. Not a single tower should remain unfilled.

The complete involvement of all technical and human resources in each kolkhoz and sovkhos in the harvesting of grasses must be achieved. The best period for hay making must be strictly adhered to.

PP/2

CSO: 1824/424

LIVESTOCK FEED PROCUREMENT

QUALITY CONTROL OF GREEN FEED IN RSFSR

Moscow SEL'SKAYA ZHIZN' in Russian 11 Aug 83 p 1

[Article by M. Ovcharenko, head of the Laboratory for Feed Quality at VNIPTIKHIM and T. Degryareva, scientific worker: "Controlling Quality"]

[Text] Approximately 4 million tons of feed are produced annually in the RSFSR with the aid of artificial drying. However, as a rule the quality of this feed is not very high. Over the past 2 years, less than one third was classified as being of 1st or 2d class quality and an inspection carried out during this current year has revealed that low quality grass meal is being produced on many farms in Novgorod, Kalinin, Kostroma, Smolensk, Voronezh, Tambov, Omsk and Kurgan Oblasts and in the Kabardino-Balkar and Udmurt Autonomous Republics, where from one third to one half of it is graded as being 5th class or sub-standard.

This is unsatisfactory. Indeed, low-value and overripe grasses are frequently used in the above-mentioned oblasts for the procurements of this valuable feed, the grasses are not always harvested during the best periods and leguminous plants and also their mixtures are not being processed to a sufficient degree with cereal grasses. Only a few kolkhozes and sovkhoses are employing the multiple-cutting technology in their use of grass stands and yet it is precisely this technology which makes it possible to increase substantially the nutrient yield per hectare and also to obtain bulk from each cutting that is especially rich in protein and carotene, that is, the best raw material for the production of artificially dehydrated feed. Quite often the parameters for the drying process are not being maintained, mainly the temperature of the heating agent at the drum's input and outlet points and also the speed of its rotation.

Many examples could be cited illustrating how the timely adoption of measures recommended by the agrochemical service made it possible to raise rapidly the quality of the feed prepared. Thus, of 240 tons of grass clover meal at the Kolovayskaya Poultry Factory, 130 tons had to be rejected. The reasons for this was uncovered -- "overheating," a breakdown in the temperature regime. The jets of the unit were replaced and the delivery of fodder and the speed of rotation of the drum were increased. And the quality of the product improved noticeably. At the Kostromskaya Hog Factory and at the Zavolzhskiy Sovkhoz in Kostroma Oblast, the grass meal contained insufficient carotene. In accordance with recommendations by the agricultural chemists, the farms began

processing clover and pea and oats mixtures rich in carotene rather than overgrown cereal grasses. The same procedure was employed at the Navlya Feed Production Association in Orel Oblasts, the machine operators of which prepared meal from overripe winter rye that was low in vitamins. The situation changed when the farm began using perennial grasses.

Fine operation control has been organized over the quality of grass meal on many farms in Arkhangel'sk, Vologda, Kaliningrad, Leningrad, Lipetsk, Belgorod, Orel and Kursk Oblasts, in Krasnodar Kray and in the Karelian, Mari, Tuva and Tatar ASSR's, where checks are carried out on the quality of 90-100 percent of this feed. The agrochemical services in Vladimir and Yaroslavl Oblasts and in the Mordovian ASSR implemented improvements in this work.

From year to year, increases are taking place in the procurements of high grade grass meal in the Mari ASSR, where quality control is exercised over practically all of the feed being procured, 60 percent of which is classified as being of 1st or 2d grade.

There are 79 field laboratories in operation throughout the republic, seminars are conducted in all areas for the machine operators and laboratory workers and the laboratories are supplied with the necessary instruments, reagents and dishware. Efficient plans for the green production line have been composed on the farms and the periods have been established for harvesting grasses having different ripening periods so as to ensure a maximum yield of nutrients. Special attention is being given to observing the temperature regime: indeed, when there is overheating the quality deteriorates and the production cost for the finished product increases.

In those areas where use is made of good raw materials having a high carotene content, where the plant bulk is delivered on a regular basis to the drying units and where the raw material is not allowed to accumulate or remain stored for an extended period prior to drying, the finished product is usually of high quality. The foundation for such results is strict control over all stages of the technological process. In the field it is necessary to inspect periodically the green production line in order to establish the developmental phase of the plants, their degree of foliage and their moisture and carotene content. This makes it possible to establish a sound working plan and to determine correctly the priority order for processing the grasses into artificially dehydrated feed.

In order to lower the power expenditures and raise the productivity of the dryers, use is being made of short-term sun-drying of the plant raw materials to a moisture content of 80-75 percent.

However, it should be borne in mind that in the process the carotene losses can reach 3-4 percent. If the grass meal is to be used as a protein-vitamin additive for hog and poultry rations, it is prepared from freshly-mown grass without souring. In such instances the consumption of fuel is increased but it is compensated by the fact that a greater quantity of valuable substances and protein is retained. With regard to the production of cuttings and granules for sheep or cattle, the sun-drying of fodder is completely justified. This

method reduces by twofold the consumption of fuel and it raises the productivity of the unit and lowers the production cost of the finished feed.

The moisture and carotene content of the fodder being delivered to the unit is checked 5-6 times during each shift. The data obtained enables an operator to select the best drying temperature regime, the optimum speed for supplying the fodder and the fuel consumption. The temperature of the grass clippings in the drum is taken no less than 3-4 times each hour.

7026

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LIVESTOCK

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AUTOMATED SYSTEM FOR LIVESTOCK MANAGEMENT EXPLAINED

Features of 'Seleks' System

Moscow ZHIVOTNOVODSTVO in Russian No 7, Jul 83 pp 29-30

[Article by L.K. Ernst, academician at the All-Union Academy of Agricultural Sciences imeni V.I. Lenin: "SELEKS -- An Efficient System for the Management of Animal Husbandry"]

[Text] An all-union scientific conference entitled "The SELEKS System for Solving the USSR Food Program" was held in Riga. A selection of the principal reports is published below.

Optimization of administration of the branch is playing an important role in accelerating the development of animal husbandry and raising its efficiency. At the present time, the level of administration is not in keeping with the modern production requirements. The volume of information is constantly increasing and there is not enough time or resources available for analyzing it and making the proper decisions. Thus, over a period of a number of years, the scientific-research institutes for animal husbandry have been working on the creation of information control systems. Various programs for the processing of information (breeding work, the preparation of rations, mixed feed recipes, output production planning and so forth) have already been developed and are being introduced into operational practice. However, in the majority of instances the programs are solving only particular tasks. The need for further improving these programs and their integration is conditioned by many factors.

The peculiarities associated with the development of animal husbandry during a given stage are manifested in the differentiation of the branch services: breeding work, veterinary science, artificial insemination, repair of equipment and so forth. Increased specialization raises the need for an integrated and all-round approach for solving the tasks confronting the branch as a whole. This is manifested especially clearly in cattle husbandry. For example, the early insemination of cows following calving increases the yield of calves but it reduces the milk yield during lactation; breeding aimed at raising the milk yields adversely affects the fat content in the milk and so forth.

The SELEKS system provides a scientific and comprehensive approach for providing information support for the production of animal husbandry products. This system, by analyzing and integrating information on breeding, artificial insemination and the veterinary science and using modern computer equipment, makes it possible to organize the production of animal husbandry products at a new level from the standpoint of quality and to adopt scientifically sound methods for program-special purpose control and for both long-term and short-term forecasting for the breeding and production processes.

The elements for program-special purpose control appeared in animal husbandry for the very first time coincidental with the development of methods for large-scale breeding, which calls for work to be carried out with large populations of animals and the use of deep-frozen sperm. An important role is played by the size of the "active portion" of a population, that is, the proportion of animals encompassed by artificial insemination and individual accounting.

Radical changes in breeding work are associated with achievements in the field of cybernetics. From the standpoint of cybernetics, a population of agricultural animals is a complicated dynamic system, the control of which is associated with the active life processes of organisms and the interaction of the animals, the environment, man and machines over an extended period of time. Under modern conditions, efficient breeding work can be carried out only on the basis of a systematic approach being employed. Thus, large-scale breeding is a synthesis of the biological and economic sciences, equipment, technology and organization.

Information is of major concern with regard to the administration of an integrated animal husbandry system. Roughly 95 percent of the time consumed in breeding work is used for the collection and processing of data -- breeding records, quality appraisals, preparation of summary lists, maintenance of breeding books and so forth. The role played by information increases with further intensification of the branch.

Under industrial production conditions, further division of labor takes place both in the sphere of providing services for the animals and in the administrative sphere, particularly in the collection and accumulation of information.

Detailed information on each animal is required during breeding (determination of breeding value, taking into account parentage and economically-useful qualities, reproduction and so forth).

Control over the biological processes is complicated by great variability in the characteristics studied. The population-genetic and economic parameters in animal husbandry change not only from herd to herd but also in terms of time. Thus, when selecting breeding programs, they should be defined more precisely and evaluated on an annual basis. Many elements of such a program, for example the selection of pairs, control over inbreeding or an evaluation of the economic value of individual breeding characteristics, require a forecast for the situation which will prevail 15 or more years into the future. It is difficult to exaggerate the potential of computer equipment in this regard.

The SELEKS System represents a complex of measures for the integration of breeding, artificial insemination, economic use and protection of the health of animals. It provides the information required for making decisions with regard to administering a farm, brigade, animal husbandry operations of a region or republic and, in the future, for the entire country. Detailed information accumulated within the system on all changes in the breeding use of the animals. It serves as a source of input information for other information systems. In the process, SELEKS was developed taking into account the possibility of it serving in the final analysis as a fragment of the national automated system for the processing of agricultural data.

At the present time, the pilot complex of SELEKS tasks includes entirely the processing of data on dairy cattle husbandry. It solves a number of tasks concerned with breeding, the veterinary science, control over technological processes and forecasting and planning. At the present time, this development can be introduced into use on all farms where individual records are maintained on cow productivity and insemination. Program support has been prepared for the Minsk-22 type VM [electronic computer], Minsk-32, YeS, M-5000. Planning is underway for the SM type VM. During the course of mastering a data processing technology, the expenses amount to 8-10 kopecks per cow per month. This is the most economic system of all those being employed in cattle husbandry.

The conversion over to this system is producing the following results.

1. Genetic potential for productivity is being raised through strict control over individual productivity and scientifically sound selection of animals based upon more reliable information on each one of them and also through the extensive use of outstanding sires.
2. Five to ten percent better use is being made of the reserves available for increasing the production of meat and milk, through control over observance of the production technologies, over the productive capabilities of the animals and over reproduction of the herd.
3. The contradiction between growth in the labor productivity of milkmaids and the lag in the labor productivity of specialists is being eliminated. The animal husbandry specialists are administering and controlling the biological processes on a new quality level.
4. The number of entries required for the maintenance of zootechnical documentation is being reduced by a factor of four per cow.
5. Data is being accumulated for forecasting, planning and other allied information services.
6. A reduction is taking place in the volume of information available and the information is available for use by various specialists. Whereas the traditional summary list of quality appraisals for dairy cows contains more than 1,000 indicators, the SELEKS System includes only 115, with the information value of these indicators having increased twofold.

The SELEKS System will be developed in two directions: the development of solutions for new tasks and technical improvements. Thus the analysis and

administration of the complete life cycle for dairy cows require the development of information support on the raising of replacement young stock. The development of young stock and the status of their health subsequently exert a substantial effect on the health and productivity of cows during the entire period of their use. However, owing to a shortage of information, these interrelationships have been studied very little and they have not been taken into account adequately in production operations.

An important task is that of maintaining accounts on the accumulation and use of sperm. A tremendous number of dosages is being stored in the sperm banks. Moreover the genetic qualities of the bulls, the sperm of which is being accumulated, vary within broad limits.

The introduction of the SELEKS System should first of all be accelerated in those zones having well developed animal husbandry breeding operations and in the operational zones of large artificial insemination stations. This will make it possible to optimize the use of the genetic resources.

One important task is that of forecasting and planning milk production. The accumulation of data on the biological status of animals provides a most reliable base for forecasting and planning production.

In accordance with the SELEKS System, work is also being carried out in the area of swine raising. However, in view of the fact that these animals are characterized by a shorter reproduction cycle, the requirements for operational information are increasing here. Thus, in all of the country's zones, the pool of computer equipment may satisfy these requirements.

The development of the system is associated with improving control over the technological processes, which have been given the title "Programmed Production of Animal Husbandry Products."

It is now obvious that considerable losses arise in animal husbandry as a result of failure to observe certain requirements established for management of the branch, disruptions in technological discipline, information distortions and so forth. The SELEKS System was developed in a manner so as to objectively record these violations and issue reports on them to the appropriate levels of branch administration. Various organizations participated in the development of the SELEKS System (VIZh /All-Union Scientific-Research Institute of Livestock Breeding/, VTs TSSU /Computer Center of the Central Statistical Administration/, GvTs MSKh SSSR /Main Computer Center of the USSR Ministry of Agriculture/, the Analytic Station for Breeding Work of the Latvian NIIZhIV). Further improvements are required in the SELEKS System in connection with closer and more efficient interaction and also in the division of labor.

A special council should ideally be created attached to VASKhNIL /All-Union Academy of Agricultural Sciences imeni V.I. Lenin/ for coordinating SELEKS problems with the problems of zootechnics, veterinary science, economics, feed production and others. In the process, VIZh and VNIIRGZh must be tasked with the development and coordination of scientific studies on large-scale breeding, under conditions involving the general introduction of the SELEKS System, the VNITI for Cybernetics -- with the problems concerned with controlling breeding

work at the upper levels of administration and the computer centers of the USSR Ministry of Agriculture -- with the development of programs for the SM-4 VM. In order for the scientific-technical works to be carried out prior to introduction of the system, improvements must be realized in the logistical base for the support-model farm of the USSR Ministry of Agriculture within the SELEKS System -- the Analytic Station for Breeding Work.

An acceleration must take place in the complete equipping of the laboratories with modern instruments and equipment for determining the quality of the milk, controlling mastitis and establishing pregnancies in the cows. In the future, the processing of SELEKS data must be carried out on miniature computers installed directly on the farms.

During the next few years the SELEKS System must be introduced into operations on farms throughout the entire country. This will make it possible to fulfill more successfully the tasks set forth in the Food Program.

Use in Cattle Breeding

Moscow ZHIVOTNOVOÐSTVO in Russian No 7, Jul 83 pp 30-31

[Article by T.G. Dzhaparidze, Doctor of Agricultural Sciences, V.Ye. Kirsanin, Candidate of Agricultural Sciences, at VNPO for Breeding Work in Animal Husbandry of the USSR Ministry of Agriculture: "Introduction of an Automated System in Dairy Cattle Husbandry"]

[Text] The SELEKS System is being introduced into dairy cattle husbandry based upon a joint decision handed down by the USSR MSKh [Ministry of Agriculture] and the USSR TsSU [Central Statistical Administration]. Control over its introduction has been entrusted to the All-Union Scientific-Production Association for Breeding Work in Animal Husbandry of the USSR MSKh (All-Union Scientific Production Association). Towards this end, it has defined a number of problems for the various regional levels of administration, it summarizes the accounting information and operational experience of union republics and it utilizes SELEKS data for organizing breeding work; jointly with interested organizations and departments, it develops statutes, recommendations and instructions on the use of economic-mathematical methods and EVM's [electronic computers] in pedigree animal husbandry and presents them to the Technical Council of the USSR MSKh; it participates in publicizing its introduction into pedigree animal husbandry operations.

Instructional-methodological management in organizing use of the SELEKS System has been assigned to the Analytic Station for Breeding Work of the Latvian NII Zhiv [Scientific Research Institute of Livestock Breeding and Veterinary Sciences]. Based upon cost accounting principles, it coordinates the work concerned with further development of the system; it develops technical documentation, recommendations and instructions for the SELEKS System; it is responsible for training and for improving the skills of those personnel working with the system at the various levels of administration and it furnishes assistance in introducing the SELEKS System into operations in the republics and oblasts.

The union republic ministries of agriculture, republic breeding associations, oblast agricultural administrations and oblast breeding associations are solving the problems concerned with logistical support and financing for introduction of the system; they plan the degree to which the system is to be introduced in each rayon; they control the operation of the system; they organize republic and oblast seminars for the SELEKS System.

A mandatory condition for use of the SELEKS System must be individual accounting for the productivity and condition of animals on a farm.

The frequency for the processing and obtaining of data is dependent upon the delivery schedule for the primary documents to the VTs /computer center/ and can be monthly or quarterly. The monthly processing of data is employed in those instances where the data can be sent from the farms to the computer center or back within a period of 3 days. Monthly information that is prepared on an EVM is used both for breeding purposes and for operational control over the herd.

The quarterly processing of information is employed as a temporary measure when the farms are located at some distance from the computer center. The primary documentation is filled out in the same manner as for monthly processing, but the data is processed on the EVM only once every 3 months, mainly for breeding purposes.

The order of a republic or oblast organ of agricultural administration concerning introduction of the SELEKS System is issued in the form of an organizational-administrative document. An indispensable part of this order is the plan for introducing the system, which must reflect the following: personnel training, sources for financing during the developmental stage; base (breeding) farms; the delivery of orders to a computer center of different departmental subordination; the extent of introduction of the system by years for the current five-year plan and in the future, up until mastering of the pilot complex; responsible executive agents, the inclusion of SELEKS in the annual plans for the introduction of new equipment and a progressive technology at all levels of administration.

The following sequence is recommended for use when organizing operations under the SELEKS System: indicate the computer center (organization) which can make available not less than 10 hours of machine time monthly on a Minsk type EVM, YeS or M-5000 (roughly for the 3d - 8th or 23d - 31st dates of the month); acquire machine programs and technical documentation through a higher organization or the Analytic Station for Breeding Work; prepare the machine carriers and carry out the processing; select 1-3 farms deemed suitable for introduction on an experimental-model basis; organize the filling out and sending to the VTs of appropriate documentation on the herds and individual animals as of the 1st day of the month for which the automatic processing is to be carried out; ensure that all mistakes in the documentation received from the VTs is corrected and that the work with the output listings is mastered; after 3-6 months have elapsed following mastering of the system at an experimental farm, a seminar is conducted for those farm and rayon specialists where the system is to be introduced.

Based upon the experience accumulated in introducing the system at base farms, schedules are prepared for the transmission of documents, correcting errors and for the issuing of information from the computer center for other farms. Following formulation of the document on turning over of the system for industrial operation, the use of documents on the farms which duplicate the S.L.E.K.S. system is abolished. Specialists attached to the state breeding service must direct and participate directly in carrying out all of this work.

Following the mastering of the pilot complex for the system, the breeding service summarizes the proposals for improving it and proceeds to develop other tasks within the limits of the pilot complex (forecasting and planning milk yields, processing of data on young stock, hog raising and so forth).

The following work has already been carried out: the "Program of Measures for Introducing the S.L.E.K.S. System into Dairy Cattle Husbandry for the Period 1981-1985" has been prepared and approved; the forms for breeding and zootechnical accounting, in conformity with their processing on electronic computers and drill punch-card machines, have been changed and prepared for publication. The Latvian NII ZhiV, jointly with the VNPO [All-Union Scientific-Production Association], is periodically preparing methodological directions, instructions and recommendations for the S.L.E.K.S. System: an instruction has been prepared and published on use of the system for breeding work with dairy cattle.

Course programs on the S.L.E.K.S. System for dairy cattle husbandry specialists have been organized on a regular basis at a base of the Inter-Branch Institute for Improving the Skills of National Economic Specialists of the Latvian SSR. Three hundred and twenty individuals have been trained here, 80 individuals completed the courses in other union republics and 150 representatives of various departments received advice at the Analytic Breeding Station of LatvNII ZhiV. In addition, technical documentation and methodological assistance have been furnished to 97 computer centers throughout the country in connection with mastering the system and eight republic seminars and an all-union scientific-production conference have been conducted on this subject.

The S.L.E.K.S. System is being employed most extensively in dairy cattle husbandry in the RSFSR, the Ukrainian SSR, Kazakh SSR, Latvian SSR, Moldavian SSR and Tajik SSR. The Lithuanian, Estonian and Belorussian Union Republics have their own regional automated systems for processing dairy cattle husbandry data.

In the interest of improving the S.L.E.K.S. System, working plans have been developed for the YeS VM and plans have been prepared for the summary accounting data of farms in the union republics and throughout the country as a whole. This is making it possible to provide the party, soviet and agricultural organs at all levels of administration with information on the status of dairy cattle husbandry and to plan the development of breeding work.

Having taken note of the positive influence and promising nature of use of the S.L.E.K.S. System, importance is attached to pointing out a number of factors which are delaying its introduction into operations: there is a shortage of input forms for the S.L.E.K.S. System and the forms for the S.L.E.K.S. 1-5 are in need of radical alteration; there is a shortage of S.L.E.K.S. cards; complete solutions have yet to be found for such problems as personnel training, financing the

development, delivery and introduction of SELEKS programs and providing material incentives for the specialists; programs of the system's pilot complex have been developed for low capability EVM's, but as yet there are no programs of young cattle stock or for evaluating the quality of cows or the breeding of young cattle stock; the cost of data processing is still high in some regions of the country; those breeding and zootechnical accounting documents which duplicate the SELEKS System have not yet been abolished.

The elimination of these shortcomings will provide greater opportunities for the further development and introduction of the SELEKS System throughout the country.

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LIVESTOCK

INDUSTRIALIZED HOG PRODUCTION IN KAZAKH SSR

Alma-Ata NARODNOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 6, Jun 83 pp 44-48

[Article by S. Yerzhanov, senior economist, Virgin Lands Affiliate of the KazNII EOSKh [Kazakh Scientific Research Institute of Agricultural Economics] and V. Mukhamedzhanov, scientific associate: "Industrialized Basis for Pork Production"]

[Text] Hog raising is a relatively new branch of socialized animal husbandry in Kazakhstan, and hence it is amenable to a more rapid specialization and industrialization, which proceed in two ways: through the construction of large hog raising farms and the modernization of the existing farms.

This most "early-maturing" branch of animal husbandry is developing at a particularly fast pace in North Kazakhstan. In that region, pork accounts for 15 percent of total meat output, and it chiefly comes from large industrialized farms. Toward the end of the 10th Five-Year Plan 11 such farms had been operating with a combined hog population of more than 100,000 head and a combined annual pork production of approximately 10,000 tons. Farms specializing in grain growing also raise hogs, but their commercial pork production is limited, since most of the pork they produce is consumed internally and young hogs are sold to the population for fattening. But even small farms, too, contribute to increasing food output, and hence it would be both too early and nonsensical to proscribe them. A different matter is that progressive technologies serving to increase output and reduce costs should be introduced there, too.

North Kazakhstan, where the principal grain growing regions are located, should also become a basis of industrialized hog raising. This is indicated by the experience gained in this respect at the hog-raising farms of the Karl Marx and S. M. Kirov sovkhoses in Tselinograd Oblast, the Dvurechnyy and Oktyabr'skiy sovkhoses in Turgay Oblast, the Zlatopol'skiy and 20th Party Congress sovkhoses in Kokchetav Oblast, the Yefremovskiy Sovkhoz in Pavlodar Oblast, and the Tokushinskiy, Sovetskiy and Furmanovskiy sovkhoses in North Kazakhstan Oblast.

For example, if the economic effectiveness of hog production on industrialized and ordinary hog-raising farms in Tselinograd Oblast is compared, it turns out that the highest indicators are achieved by the S. M. Kirov Sovkhoz. There the production cost per quintal of pork is lower by a factor of 1.9--and fodder consumption, lower by a factor of 2.5--than the average for the oblast's farms. The annual output per worker on an industrialized hog raising farm is greater by a factor of 4.2 compared with the average for hog-raising farms as a whole.

Even so, the conversion to industrialized hog raising does not always justify the expenditures (which are sizable) required to build the necessary facilities.

Above all, the designed capacities are still not being attained adequately. Thus, in 1980 on the 11 industrialized hog raising farms in North Kazakhstan pen capacities had been incompletely utilized (97 percent) and the planned output of pork, which should have been 12,183 tons, was actually 9,436 tons (77 percent).

The productivity of the animals is low and the average daily weight gain is 284 grams (compared with the planned 500 grams). Moreover, the variation in weight gain is considerable, ranging from nearly 500 grams daily at the S. M. Kirov Sovkhoz to only 153 grams at the Maksimovskiy Sovkhoz. Labor expenditures display a similar variation: at the Sovetskii Sovkhoz in North Kazakhstan Oblast one quintal of pork costs 2.1 man-hours while at the Petrovskiy Sovkhoz it costs 18.9 man-hours. On the average, for all the industrialized hog raising farms, this indicator is 9.7 man-hours.

Labor productivity largely depends on the level of the mechanization and automation of production. The very idea of industrialized hog-raising farms presupposes their use of identical equipment, the operation of machinery under similar conditions and the raising of specific species of hogs. But this is not always true. For example, the level of comprehensive mechanization at the Furmanovskiy Sovkhoz in North Kazakhstan Oblast is only 38 percent, and at the Karl Marx Sovkhoz in Tselinograd Oblast it is 42 percent. On the former farm there are 210 hogs to every operator and on the latter, 170. At the Sovetskii Sovkhoz in North Kazakhstan Oblast there are as many as 887 "subordinates" per attendant! Thus while the average output per hog farm employee at the first two sovkhoses is 12,700 and 11,900 rubles a year, respectively, at the Sovetskii Sovkhoz it amounts to 98,400 rubles.

Fodder consumption per output unit also is high. Thus, an average of 7.7 quintals of fodder units is spent per quintal of pork produced, and moreover the greater part of the fodder consists of concentrated (chiefly grain) fodder. Of course, such fodder is both nutritious and readily stored and transported. But why is it, for example, that the fodder does not include pulse crops, which contain substances needed by the organism, as well as other fodder crops which are not as expensive as grain?

The problem of the fodder base for industrialized hog farms is as yet far from being solved optimally--hence also the high production cost, which averages 143.31 rubles, with variations from 93 rubles at the Zlatopol'skiy Sovkhoz in Kokchetav Oblast to 244 rubles at the Maksimovskiy Sovkhoz in Tselinograd Oblast. Moreover, on the whole, the depreciation rate on these farms averages more than 12 percent compared with 8 percent on ordinary hog raising farms. Thus, depreciation and other direct overhead account for one-fourth of the production cost per quintal of pork at industrialized hog farms in Tselinograd Oblast (on the average, 149 rubles), whereas for the oblast's sovkhoses as a whole they account for only one fifth of production cost.

The organization of production at industrialized hog farms is designed to assure a smooth and regular flow of the needed volume of output. But it is rare that uniform groups of animals are supplied to the meat combines. A fairly large proportion of the animals are inadequately fattened (fattening categories 2 and 3), which also results in making this production less effective. For example, in

1980, the industrialized hog farm of the Yefremovskiy Sovkhoz in Pavlodar Oblast delivered to the meat — only 910 hogs in fattening category 1 (5 percent of all hogs delivered). The animals delivered by the Petrovskiy Sovkhoz in Tselinograd Oblast are estimated to be mostly in fattening categories 2 and 3.

We analyzed the 1980 production-economic indicators of a separately taken leading industrialized hog farm (Sovetskij Sovkhoz, North Kazakhstan Oblast) and of all the sovkhozes in the same oblast and region—North Kazakhstan.

Calculations showed that the conversion of hog raising to an industrialized basis, when made with allowance for all the factors considered above, indeed assures a high profitability and economic effectiveness of the branch (see Table 1).

Table 1

	Unit of Measure- ment	Hog Farm of Sovetskij Sovkhoz, North Kazakhstan Oblast	For All Sovkhozes in North Kazakh- stan Oblast	North Kazakh- stan (Region)
Mean daily weight gain	grams	318	156	187
Fodder consumption	fodder units per quintal	6.14	16.4	13.6
Labor expenditures	man-hours	2.1	26.9	30.5
Hogs per attendant	head	887	159	131
Comprehensive mechanization	%	100	85	88
Weight per head delivered to the state	kg	95	73	90
Delivered hogs in fattening category 3	%	3	44.1	54.4
Production cost per quintal of pork	rubles, kop.	112.33	202.77	201.1
Profitability	%	+25.0	-28.3	-25.4

The above figures show that a proper application of industrial technology markedly improves the branch's performance. The Sovetskij Sovkhoz produces 1 quintal of pork a year at the cost of 2.1 man-hours of labor expenditures per quintal, with the production cost per quintal amounting to 112.33 rubles. Its fodder expenditures are lower by a factor of 2.2 than for North Kazakhstan as a whole.

The operating experience of the leading large industrialized hog farms demonstrates convincingly that specialization is a major condition for expanding this important branch of animal husbandry.

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AGRO-ECONOMICS AND ORGANIZATION

EDITORIAL OUTLINES DECREE ON INTERRELATIONS OF AGROINDUSTRIAL COMPLEX

Moscow SEL'SKAYA ZHIZN' in Russian 24 Jul 83 p 1

/Editorial: "To Improve the Economic Mechanism"

/Text/ Our party implements the Leninist agrarian policy consistently and purposefully. Improvement in the management of agriculture and of other sectors of the agroindustrial complex and perfection of the economic mechanism occupy an important place in this work at the present stage. "To ensure a well-adjusted and smooth operation of the entire economic mechanism," Comrade Yu. V. Andropov stressed at the June Plenum of the CPSU Central Committee. "This is both the need for the present and the program task for the future."

The CPSU Central Committee and the USSR Council of Ministers in accordance with the decisions of the May (1982) Plenum of the Central Committee of the party adopted the decree "On Improving the Interrelations of Agriculture With Other National Economic Sectors," which was published in the press. This important document directs national economic sectors having contacts with agricultural production to operate harmoniously and with greater efficiency. The responsibility of enterprises and organizations servicing kolkhozes and sovkhoses for an increase in the production and procurement of products and for the quality and period of performance of operations and rendering of services is raised considerably and their interest in the attainment of high end results and in an increase in economic production efficiency rises. Implementation of measures to ensure stable economic conditions of expanded reproduction on kolkhozes and sovkhoses is envisaged.

The increase in the production of agricultural products on the serviced farms, fulfillment of contractual obligations, reduction in the cost of operations and services and, for procurement organizations, fulfillment of the plan for purchases of products will now be the main indicators during an evaluation of the activity of the enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture, of the All-Union Scientific Production Association for Agrochemical Services to Agriculture and of the USSR Ministry of Land Reclamation and Water Resources servicing kolkhozes and sovkhoses, as well as during the formation of their material incentive and bonus funds.

It is envisaged that during the performance by the rayon production associations and departments of the Agricultural Equipment Association and of the Scientific Production Association for Agrochemical Services to Agriculture of

operations connected with the overall technical servicing of the machine and tractor pool of kolkhozes and sovkhoses and with the agrochemical amelioration of land the accounts of farms with them will be settled within the annual ceilings approved by rayon agroindustrial associations on the basis of standard planned outlays, which must not exceed the average specific actual expenditures of the indicated farms on these operations during the preceding 3 years. If the cost of operations and services connected with the repair and technical servicing of tractors, motor vehicles, machines and equipment and with the agrochemical amelioration of land is higher than the established annual ceiling, the amount of excess is applied to the results of economic activity of the Agricultural Equipment Association and of the Scientific Production Association for Agrochemical Services to Agriculture.

During the fulfillment by the associations and departments of the Agricultural Equipment Association and of the Scientific Production Association for Agrochemical Services to Agriculture, by water management and repair and operation organizations and by rayon Poliv /Watering/ associations of operations, which are an integral part of the technological processes of output, accounts with them are settled during the year on the basis of 92 percent of the cost of actually performed operations and rendered services at approved rates and prices. On the basis of annual work results additional payments will be made in terms of 1 percent of the cost of actually performed operations and rendered services per percent of fulfillment (in excess of 92 percent) and over-fulfillment of the established plans for the production of all products or their individual types at the serviced kolkhozes, sovkhoses or their production subdivisions.

The rayon production associations and departments of the Agricultural Equipment Association and of the Scientific Production Association for Agrochemical Services to Agriculture, water management and repair and operation organizations and Poliv production associations will now return to kolkhozes and sovkhoses 50 percent of the above-plan profit from the activity connected with their servicing in proportion to the volumes of performed operations in value terms.

The decree aims at an improvement in the quality of technical servicing for agriculture. Thus, shortcomings in tractors, motor vehicles, machines and equipment sold to kolkhozes and sovkhoses, which are disclosed during the warranty period, should now be eliminated by the associations and departments of the Agricultural Equipment Association. Water management organizations eliminate flaws in the water management and reclamation network at their expense. Manufacturing enterprises are obliged to ship units, subassemblies and parts instead of those that fail to the department of the Agricultural Equipment Association within 1 month from the day of receiving the certificate of inspection of the quality of machines and equipment, which were delivered by them, but failed through their fault during the warranty period. They reimburse the Agricultural Equipment Association for the expenditures on the repair of machines that fail during the warranty period.

A procedure, according to which for a delay in the delivery or for an under-delivery of mineral fertilizers, plant protection agents and other chemical products, suppliers pay a fine to the associations and enterprises of the Scientific Production Association for Agrochemical Services to Agriculture, is being introduced.

The responsibility of procurement organizations for the acceptance and preservation of all products and, on kolkhozes and sovkhoses, for their quality is raised considerably. Rayon agroindustrial associations are given the right to bring actions in accordance with the established procedure against procurement and service enterprises and organizations for the recovery from them of deficient or overpaid sums in favor of kolkhozes and sovkhoses. It has been established that during the recovery of the indicated sums in favor of kolkhozes and sovkhoses procurement and service enterprises and organizations also pay a fine of 20 percent of the recovered sum in favor of the Union budget revenue.

Provision has been made to introduce into practice reports of managers of enterprises and organizations servicing agriculture on the fulfillment of contractual obligations at general meetings of kolkhozes and at production conferences of sovkhoses. This will raise their responsibility for the quality and period of performance of operations.

The fulfillment of the decree on improving the economic relations of agriculture with other sectors will require large-scale organizational and educational work from party, Soviet and agricultural bodies and councils of agroindustrial associations. The study and explanation of the measures envisaged by the decree will have to be organized. It is important to communicate the profound meaning of these measures to every manager and specialist and to every worker of the agroindustrial complex. It is necessary to significantly intensify economic work at kolkhozes, sovkhoses and the enterprises and organizations servicing them, to ensure the introduction of effective internal cost accounting, as well as the brigade contract, in brigades, departments, shops, farms and sections for the purpose of increasing labor productivity, lowering production costs and improving the quality and reducing the losses of output and to take measures to strengthen planning, technological, financial and performance discipline.

To set up effective control over the course and practical realization of the decree is a critical task. Such control in combination with lively organizational and educational work will help to uncover unutilized potentials, to raise labor productivity and to increase the end result.

To direct and mobilize party members and all the workers of the agroindustrial complex for the strengthening of discipline, efficient utilization of the already created production potential, observance of the policy of economy and thrift and introduction of cost accounting are now the main things. Everyone must well understand that only a careful and competent management of affairs will bring a high return on the funds invested in production development and will ensure a growth of our economy and a successful fulfillment of the country's food program.

LABOR PROBLEMS IN PRODUCTION OF FINE-FIBERED COTTON IN UZBEK SSR

Moscow EKONOMIKA VEL'KOGO KHOZYAYSTVA in Russian No 7, Jul 83 pp 85-88

[Article by D. Sharapov, chief economist for the Kommunizm Kolkhoz of Surkhan-Darya Oblast in the UzSSR: "Increased Labor Productivity in the Growing of Fine-Fibered Cotton"]

[Text] The Surkhan-Darya Oblast in the UzSSR is one of the principal producing regions of fine-fibered cotton. Some 10 percent of the republic's cotton farms and 50 percent of the cotton planted are concentrated here.

But still the production of fine-fibered cotton does not satisfy the demands of our own economy and that of the member countries of CEMA.

The use of labor and other inputs in the production of fine-fibered cotton is high almost 40-50 percent greater than in the production of medium fibered varieties. Harvest work is particularly labor intensive; here most of the work is done by hand. Low labor productivity and high input levels are significant in checking the growth in production of this most valuable manufacturing material. Production must be increased at least by a factor of 2.5 compared to present levels.

Thus we see the urgent need to increase labor productivity in the fine-fibered cotton industry.

The cultivation of one hectare of cotton, using the machinery now available, requires 250-300 man-days. Cotton farms in Surkhan-Darya Oblast failed to reach annual work quotas for those employed on collective farms (250 man-days); total time per worker varied between 170 and 223 man-days. Labor productivity was practically at a common level. Gross output of cotton increased 17.2 percent for the ten year period, while for fine-fibered cotton it increased by 5.6 percent. Annual gross output of raw cotton per worker increased by 80.7, while that for fine-fibered cotton increased by 83.8. Direct expenditures on the production of one quintal of raw cotton during the 1971-75 Five-Year Plan amounted to 81.7 percent of the expenditure incurred during 1971-75 and 87.5 percent of the expenditure on raw-fibered cotton during that period.

It is necessary to point out that the use of monetary indices to determine

labor output with regard to quality and variety is not entirely accurate. The revenue product per worker in the cultivation of fine-fibered cotton is greater than that for medium-fibered cotton because of the higher price for the former. In addition, fine-fibered cotton is a much more labor intensive crop. Therefore in comparing labor productivity with regard to cotton quality and variety, we must use indices that involve in kind calculations or units of time.

Inputs of labor, especially manual labor, are still high for cotton production in Surkhan-Darya Oblast. Some 50-55 percent of the labor force is employed in the harvesting of fine-fibered cotton. Not all kolkhozes have high cotton yields. During the last ten years yields varied from 32.21 quintals per hectare in Termezskiy rayon to 38.78 quintals per hectare in Kumkurganskiy rayon. Output of raw cotton per able-bodied collective farm worker ranged from 17.9 quintals in Saryassiyanskiy rayon to 28.9 quintals in Shurchinskiy rayon, and direct labor expenditure on the production of one quintal of raw cotton varied from 25 man-hours in Shurchinskiy rayon to 36 man-hours in Kumkurganskiy. It has been determined that there are large differences in labor expenditure among kolkhozes in each rayon. This means that reserves exist whereby labor productivity can be increased.

In an analysis of production and an in-depth study of labor productivity on cotton producing kolkhozes in Surkhan-Darya Oblast of the USSR, researchers worked out and introduced specific proposals designed to increase labor output in cotton production. Results reveal a system of measures that incorporate a more efficient use of machinery, other production inputs and other resources, and a significant reduction in expenditures on the production of fine-fibered cotton on kolkhozes of Surkhan-Darya Oblast.

Experience gained on the best farms shows that in the south of Uzbekistan the same high medium-fibered cotton yields can be attained for fine-fibered cotton by maximizing the mechanization of the planting and harvesting processes. And as a result both the efficiency of labor expenditures and labor productivity increase.

Almost one-half of labor expenditures in cotton production occur during harvest time. To reduce these labor expenditures we must increase the mechanization of the harvest and improve the use of harvest machinery. In Surkhan-Darya Oblast the cotton harvest is only 25-30 percent mechanized. On kolkhozes in the oblast the cotton harvest was 32.8 percent mechanized in 1982. Studies indicate that this level of mechanization can be raised to 41.2 percent. The issue of better use of machinery is closely related to that of ensuring kolkhozes a permanent supply of qualified machine operators.

The reserves whereby labor productivity and agricultural output can be increased are determined by calculating joint expenditures (manpower and input use per unit of output).

Two cotton producing kolkhozes in the oblast served as subjects for a study of combined input expenditure: the Leninabad Kolkhoz of Shurchinskiy rayon and the Zhdanov Kolkhoz of Termezskiy rayon. The first grows medium-

kolkhozes that ratio must not be less than 1:2; the percentage of tractors on wheels should be brought up to 60-65 percent. This will permit a reduction in labor use per hectare by 25-28 percent.

The necessity of reducing labor expenditures in cotton production, the increased labor efficiency--these are what make the problem of improved labor use so urgent on kolkhozes in Surkhan-Darya Oblast. The basic solution lies in further intensification of production by an efficient combination of various sectors.

Research indicates that improved use of labor inputs are greatly dependent on perfection of the production process. Efficient sector combination on cotton kolkhozes will ensure an increased labor productivity of 17-18 percent and will increase labor activities of farm workers by 25-28 percent.

With a view to improving the use of labor inputs, computations were made from a model of a cotton farm that has an efficient production structure (see table 1). Computations based on figures supplied by the Zhdanov kolkhoz support a system of balanced coordination. The latest economic norms were used, and computations were done on a scientifically based analysis for both cotton and livestock production.

Table 1. Main parameters of efficient sector coordination on cotton producing kolkhozes of Surkhan-Darys Oblast

	Zhdanov Kolkhoz of Termezskiy rayon, <u>actual 1979 indices</u>	<u>long-term kolkhoz model</u>
Agricultural and base--		
Total (hectares)	13,458	13,458
plowed fields	2,190	2,490
Share in the cost of commodity output (%)		
cotton	92.6	76.8
livestock	7.4	23.2
Average number of kolkhoz workers	1,356	1,356
Average annual output per kolkhoz worker (rubles)	4,269	5,173
Average number of man-days put in by able-bodied kolkhoz worker	180	250

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Table 2. Labor expenditures (in million rubles) for the production of one unit of the ... (The text is too faint to read the full caption, but it appears to describe the data in the table.)

	1960						1965 as a % of 1960 index
	1960	1961	1962	1963	1964	1965	
Expenditures on labor:							
Total labor	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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Expenditures on ... (illegible):							
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Expenditures on ... (illegible):							
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This work was done in accord with the methodology developed for norms by VNIIEKh and approved by the USSR Gosplan and the USSR Ministry of Agriculture in 1974. The solution was reached by use of multiple regression equations, and the calculations were based on statistics supplied by the following kolkhozes: Naimana, Kommunizm, Kyzyl Yulduz and Zhdanov. It is on these kolkhozes that the least amount of labor is used in commodity production. On the basis of regression coefficients, direct labor expenditures for the production of one quintal of raw cotton were determined; indirect labor expenditures were projected by the computational method.

From the above figures it is apparent that both actual and normative labor use in the production of fine-fibered cotton is 25-30 percent higher than for medium-fibered.

Norms developed for the long term will permit the reserves available in labor reduction in cotton production to be identified and exploited more fully. Their introduction into production will permit a 25-30 percent reduction in labor per quintal of output and a more efficient use of labor inputs. Preliminary figures suggest that the annual economic impact of these norms will amount to R75-85,000.

Source: Izdaniye "Koms", "Ekonomika sel'skogo khozyaystva", No 7, 1984.

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AGRO-ECONOMICS AND ORGANIZATION

PROBLEMS, PROSPECTS OF ESTONIAN AGRICULTURE EXAMINED

Tallinn KOMMUNIST ESTONII in Russian No 6, Jun 83 pp 19-24

/Article: "Agriculture: A Period of Great Changes"/

/Text/ In April of this year, the 10th Plenum of the Central Committee of the Communist Party of Estonia approved the Food Program for the Estonian SSR, developed in conformity with the party's economic strategies and the decisions handed down during the May (1982) Plenum of the CPSU Central Committee. Its development is a large-scale and complicated task, especially in view of the fact that the program called for merging the efforts of agriculture and the industrial branches which provide services for it, the systems for the procurement, processing and storage of agricultural products, transport and trade. The development and activities of all of these branches of the economy should be subordinated to the same final goal -- within a comparatively brief period of time, to achieve a substantial increase in agricultural production and, on this basis, to improve the supply of food products for our people.

Over the past decade, the public gross output produced in agriculture in the Estonian SSR increased by a factor of 1.45. During this same period of time the productive fixed capital increased by a factor of almost 2.3, the power-worker ratio -- by slightly more than twofold, electric power consumption -- by a factor of 3.2 and mineral fertilizer deliveries -- by a factor of 1.4, as a result of which considerable growth was realized in labor productivity and in output volume.

The increase in the production potential in agriculture is making it possible to provide the population with a better supply of food products (in terms of caloric value, the food ration for the people conforms to the physiological norms). Taking into account the country's economic level, the party has assigned the task at the present time of providing the population with diverse food products as rapidly as possible and increasing considerably the consumption of valuable products. The plans call for the complete satisfaction of the demand for such food goods as eggs, margarine, fish, groats and confectionery products and also for a substantial increase in the supply of meat, milk, vegetable oil, fruit and vegetables.

For implementation of the Food Program, the most important concern is that of expanding agricultural production, since it is such production that supplies the principal food products. In agriculture proper, stable and high productivity must be achieved in animal husbandry and field crop husbandry.

In 1980, 1.17 million tons of milk and 196,000 tons of meat (in dressed weight) were produced in the republic and last year the amounts were somewhat less. In 1985 however, the plans call for 1,250,000 tons of milk and 291,000 tons of meat to be produced. With the passage of 2-3 years, at least 200,000 more tons of grain and 100,000 more tons of potatoes must be obtained annually than were obtained in 1980. This task is particularly ambitious since owing to the impossibility of expanding the agricultural lands, an increase in output must be obtained mainly through production intensification.

The planned rates of growth in agricultural production, despite the requirement for a great amount of effort on the part of the kolkhozes and sovkhoses, still constitute a very realistic task. For example, during the 1971-1980 period the gross yield of grain in the republic increased by a factor of almost 1.7 and yet during the 1981-1985 period it must increase by a factor of only 1.2. In 1980 there were 50 farms in the republic which had a per hectare grain crop yield of 32 quintals, that is, it surpassed the level planned for 1985. Last year the average yield for grain crops in four regions of the republic was higher than the figure planned for 1985. A definite gap in the production level for farms will obviously be maintained in the future and thus at some of them, those which operate under better production conditions, the yield of the grain crops must remain stable at 45-46 quintals per hectare. Such quantities of grain were harvested last year at the kolkhozes Edazi (Pyarnuskiy Rayon), Valtu (Raplaskiy Rayon) and Vambola (Vil'yandiskiy Rayon).

One key task confronting the republic's agroindustrial complex is that of increasing meat production. Our level of consumption of meat and meat products is rather high and yet the demand is even higher. In order to cope with the meat production tasks, it will be necessary to increase the number of head of cattle and hogs, with special importance being attached to their fattening. The average sales weight for the former must be not less than 430-440 kilograms and for the latter -- 100-102 kilograms.

The procurement prices for mutton were raised on 1 January of this year (by an average of 47.7 percent) and this is creating favorable prerequisites for the development of sheep raising both in the public and private sectors. We have meadow lands at our disposal which are suitable for the breeding of sheep and which are being used very little. Sheep pelts can be sold or turned over for tanning under profitable conditions.

The intensity of milk production must be increased appreciably. During the 15th Congress of the Communist Party of Estonia the task was advanced of raising the average milk yields to 3,900-4,000 kilograms per cow by the end of this current five-year plan. In 1980, 50 of the republic's farms were maintaining such a production level.

The decisions handed down during the May (1982) Plenum of the CPSU Central Committee and the Food Program obligate the agricultural workers to undertake measures aimed at increasing the output volumes for animal husbandry and field crop husbandry. First of all it will be necessary to strengthen feed production and the grain economy. The essence of the problem lies in how best to weaken the dependence of agriculture upon the caprices of the weather,

obtain high and stable field crop yields and, on this basis, ensure a continuous supply of animal husbandry products for the population. During the past decade, proper attention was not given throughout the republic to strengthening the feed base. This is borne out by the dynamics of field crop husbandry and animal husbandry production operations. For example, during the 1976-1980 period the volume of animal husbandry output increased by an average of 35 percent compared to the 1966-1970 period and yet that for field crop husbandry -- by only 13 percent. This means that agriculture furnished a considerable portion of the animal husbandry products by means of state concentrated feed funds and yet this procedure cannot ensure stable production operations.

If the physiological feeding norms are used as the basis, then 9-11 kilograms of dry substance from the principal feeds (fodder in summer and hay, silage or food roots in the winter) should be expended daily per head of cattle. During the past indoor maintenance period, 7 kilograms of dry substance were expended daily per head of cattle and last summer -- 7.5-8 kilograms. Thus, during both the winter and summer the cattle are being deprived of almost one third of the grass feed required. The feed problem has become aggravated by the fact that the development of the feed base is lagging behind the construction rates for livestock complexes and the increase taking place in the number of cattle. According to data supplied by the Agroindustrial Association for the Estonian SSR, during 1980 and 1981 internally produced feed amounted to only 72-73 percent of the overall volume of feed. The addition of mixed feed initially produced positive results -- the productivity of the cattle was raised. However, during the 10th Five-Year Plan, notwithstanding the abundant feeding of mixed feeds, productivity not only failed to increase but in fact it declined -- the feed structure came into conflict with the feed requirements of the cattle.

Hence the conclusion: no longer could the former method be employed. The feed problem must be solved separately. A rapid improvement in meat and milk production can be expected only if a sharp increase is realized in the procurements of grass feed and if the quality of such feed is raised. On each farm the meadows must be improved, fields must be planted in alfalfa, clover, rape and peas and the growing of feed roots must be revived.

In recent years the grain fields have decreased somewhat throughout the republic (the reduction must be compensated by an increase in cropping power) and thus the growing of grain crops on peat soils and other soils considered to be ill-suited for this purpose must be avoided. Scientifically sound crop rotation plans, the use of which as experience has shown furnishes considerable increases in yields, can and must be introduced into operations on each farm.

In order to procure the required quantities of grass feeds, the yield of the meadows during the next few years must be not less than 45-50 quintals of dry substance per hectare. Unfortunately, many farms are still utilizing meadows which were sown 3-5 years ago. One of the first conditions for intensifying the production of grass feed is that of regular renewal of the meadow lands. Up to 50 percent of the areas occupied by sown grasses, 15 percent of the cultivated pastures and 20 percent of the cultivated haying lands and alfalfa should be renewed each year throughout the republic.

The fine yield of grass seed obtained last year is making it possible this year to implement in a more energetic manner the plans for the planting of new meadows. In meadow seed production, an increase should take place in the proportion of early cereal grasses and red clover; this will aid in restoring order to the green conveyor line. However, mainly late types are still being grown, for the most part field timothy, and thus the green conveyor lines, which should meet all of the requirements, are in operation only on individual farms. Under our conditions, with carbohydrates predominating in the feeds and there being no opportunity for purchasing protein-rich feed, sown grasses and the feed procured from them remain the chief source of protein.

Experience and scientific studies have shown that sown grasses furnish 25-30 percent more feed units and up to 45 percent more protein per hectare than do grain crops. By no means do we wish here to set grain crops in opposition to sown grasses. Under our republic's conditions, the intensive raising of sown grasses leads not to a deterioration in the structure of land utilization, but rather it serves as a true means for creating a strong feed base and increasing the production of protein.

The intensive operation of meadow lands is making it possible to realize economies in the use of labor and energy expended per unit of output. This is the first principle of socialist management. And an equally important point -- compared to grain crop and potato yields, the yields obtained from sown grasses in our republic are more stable and less dependent upon weather conditions. In order to raise the production of grass feed to the modern level, material resources are required. However, the shortage in such material resources is one of the chief reasons for the lag that has developed in meadow culture in the Estonian SSR. Meanwhile, this constitutes an area of true reserves which can rapidly be placed in operation.

Considerable importance is being attached to the use of mineral fertilizers in meadow culture and in as large quantities as possible. At the same time, the dairy cattle should be fed less mixed feed. This truth must be mastered by the farm leaders and specialists, with the party organizations being obligated to support it. Actually the changes ensure better preparation and organization for the summer grazing of cattle, where the chief reserves are found. Grass yields obtained during the growing season are converted into meat and milk more easily and more rapidly. The conversion over to the early harvesting of sown grasses should be carried out without hesitation and feed prepared from it, while taking into account the dry substance content in the grasses and the weather conditions. One type of grass feed cannot be set in opposition to another. One must remember the rule that early harvested and carefully preserved feed is more valuable and more rich in protein than that procured later.

For all practical purposes, our procurement of grass feed ends each year with the commencement of the grain mowing period. The feed production working groups must be formed in advance and thereafter consistency displayed; the personnel and equipment must not be transferred to other harvesting operations. To rely upon later feed procurement periods -- is to doom the work to failure. The livestock breeders must also be convinced regarding the long-term prospects for the use of good quality haylage and preserved grass, upon which

the results of animal husbandry operations during the winter period are greatly dependent. It must be assumed that not all years will be as favorable for procuring hay as was 1982.

Another means for strengthening the feed base -- that of expanding considerably the areas sown in protein-rich forage crops -- rape, peas, ~~and other~~. The Agroindustrial Association of the Estonian SSR plans to increase, by 1990, the area sown in spring rape to at least 30,000 hectares. The growing of rape will aid in overcoming the protein deficit, particularly in hog raising and in the fattening of young cattle stock, and in economizing in the use of whole milk and skimmed milk.

As emphasized during the 7th Plenum of the Central Committee of the Communist Party of Estonia, the cultivation of food roots must be organized anew. During the winter root crops, especially semi-sweet beets, are irreplaceable in the ration for dairy cows. Beets represent a rather labor-intensive crop and yet effective assistance in growing them can be obtained from students, pensioners and housewives.

The only possible method for creating a strong feed base in our republic -- maximum improvements in the meadow culture based upon modern scientific achievements and leading experience. In addition to increasing the volume of internally produced feed, equal importance is attached to undertaking measures aimed at reducing feed expenditures per unit of output and thus raising the intensity of production.

In recent years, however, our indicators for intensity have not only not improved but in fact they have even deteriorated somewhat. Thus at 39 farms in 1981 and at 55 farms in 1982, less than 3,000 kilograms of milk were obtained per cow, with 115 feed units being expended per quintal of milk, of which 38.3 percent was for mixed feed. The year before last the daily weight increase in hogs undergoing fattening at 47 farms did not reach 300 grams, with 712 feed units being consumed per quintal of weight increase. Only at 11 farms did the daily weight increases exceed 500 grams, with the feed consumption per quintal of weight increase amounting to 522 feed units. Nor was the situation any better last year.

In the face of such a considerable overexpenditure of feed, its production becomes less meaningful. Each farm is obligated to take into account the fact that improvements in the feed base must not be limited merely to increasing the production of feed, although this is certainly an important task; the feed must be converted into animal husbandry products in the most efficient manner possible. Only in this manner will it be possible to achieve the final goal -- to increase its production from year to year.

This year is the pivotal year of the five-year plan and the fulfillment of the tasks for all 5 years will depend to a considerable degree upon how successfully the year is completed. The tasks for this year are extremely tense. The farms must sell 250,000 tons of livestock and poultry to the state. Such a level of procurements has been achieved in past years, but never before has the annual increase been planned for the present amount -- 35,100 tons. In the interest of fulfilling the tasks, the volknozes and sovkhnozes carried out a great amount of preparatory work, they increased the numbers of their livestock and poultry and they procured the quantity of feed called for in the

plans. At the present time, there are almost 15,000 more cattle and slightly in excess of 110,000 more hogs than there were last year. During the first 4 months of this year, meat production at a majority of the farms proceeded according to schedule, as a result of which all of the conditions were available for the successful fulfillment of the annual task. But much will depend upon how well the farms will take advantage of the newly begun summer period for the fattening of the cattle. We do not have any surplus feed and thus it is important for a maximum amount of fodder to be supplied daily to those large-horned cattle undergoing fattening. In the ration for hogs, particularly sows and young pigs, green feed must also constitute not less than 10-15 percent. The organization of labor is of decisive importance. For example, the Myar'yamaa Sovkhoz in Raplaskiy Rayon is an average farm and yet the daily weight increases in hogs here exceed 500 grams. Green feed and food scraps are being utilized in a skilful manner at the kolkhoz and fine veterinary and zootechnical services have been organized on the farms. As a result, a rather high profitability has been achieved here for hog raising. The experience accumulated at the Myar'yamaa Sovkhoz warrants dissemination on an extensive scale.

This year, 1.7 million tons of milk must be sold to the state. The production and procurement of milk are proceeding successfully this year. During the first 4 months of the year, 200 more kilograms of milk were obtained from each cow than were obtained during this same period last year. There can be no doubt but that the farms are coping with the state tasks for milk deliveries. But this requires the efficient organization of summer grazing for the livestock and a continuous supply of green feed for the farms. The success achieved can be very easily forfeited if it is not consolidated. If animal husbandry is to become a truly important front for work in the rural areas, then each farm must concern itself with its development in a persistent manner and on a daily basis.

Farms having a low level of production require special attention. There are presently 60-70 kolkhozes and sovkhozes in the republic which for an extended period of time have been operating on an unprofitable basis or the profit of which is extremely low. The party and government are undertaking efficient measures aimed at eliminating the backward nature of these farms. Commencing this year, raised procurement prices for milk, beef and flax have been established for 60 kolkhozes and sovkhozes with low profitability and particularly for those the backwardness of which is conditioned by difficult management conditions. They are also being provided with other assistance which must be used in a judicious manner. These kolkhozes and sovkhozes must prove that by making use of the best economic mechanism they are capable of increasing decisively their production of field crop husbandry and animal husbandry products.

In recent years a great deal has been said regarding unfavorable weather conditions which have exerted an adverse effect on agricultural production. Truly, our weather has not indulged us and yet it is not expected to indulge us in the future. Observations carried out over a period of many years reveal that every 10 years there are only 3-4 good or very good years for field crop husbandry purposes. Nevertheless the republic's best farms, such as the Maya Kolkhoz, the Vinni Support-Model Sovkhoz Technical School, the Tartu

Sovkhoz and the Vambola Kolkhoz, have been obtaining abundant yields over a period of 15 years, yields which surpass by 50 or more percent the average republic level. The operational results of the average-size Vambola Kolkhoz, the lands of which are graded lower than average, are valued in particular. Over the past 5 years, this farm has produced an average of 32 quintals of grain (moreover in storehouse weight!), 270 quintals of potatoes and 65 quintals of dry hay per hectare.

The farm's agronomists know their fields well and when optimizing the structure of the sowings and crops and selecting the fields, they accurately take into account the peculiarities of the climate and soils and the nature of the spring period. United, industrious and highly trained, the collective, under the leadership of the party organization, strives to carry out all work during the best periods and this is the most efficient method for the utilization of manpower. The result -- stable and high yields.

The new and leading work methods are being introduced into production operations more slowly than desired. The reasons for this are of both an organizational and economic nature. The time is at hand for modernizing the "science - production" system. We do not suffer from a shortage of knowledgeable people but we clearly lack a mobilizing organizational form for bringing new innovations to the fields and farms that is based upon economic interest.

New and progressive innovations are not introduced into production operations of and by themselves and the use of scientific knowledge must be organized. This requires the creation of the necessary prerequisites, the production workers must be provided with the appropriate recommendations and naturally the necessary resources must be allocated.

In the decisions handed down during the May and November (1982) Plenums of the CPSU Central Committee, the task was assigned of using all means for combating indifference and routine operations. In the agroindustrial associations, at kolkhozes and sovkhozes and at all other levels, the work must be carried out with a great amount of persistence, thought and industry. Such farm leaders as E. Liyeberg (9 Maya Kolkhoz), R. Mannov (Rakhva Vyyt Kolkhoz), Kh. Marrandi (Istoniya Kolkhoz) and many others are making fine decisions under difficult conditions. Unfortunately, we also have leaders who are occupied mainly with finding a basis for their shortcomings. Instead they should be analyzing their unfinished work and thereafter their shortcomings. The party organizations must deal more strictly with those who are incapable or do not wish to evaluate their own activities in a critical manner or cope with shortcomings -- their own and those of their subordinates. Expansion in the rights of economic leaders must be accompanied by greater enterprise and increased responsibility for the final results. During a meeting with Moscow machine builders, Comrade Yu.V. Andropov underscored the need for employing such an approach in party work.

When we discuss responsibility, we have in mind mainly responsibility for the fulfillment of plans and waging a true campaign aimed at implementing them. The rural party organizations are under an obligation to ensure fulfillment by the authorities and enterprises of their plans for both the production and sale of agricultural products.

The decisions handed down during the November (1982) Plenum of the CPSU Central Committee obligate the agricultural workers to display more thrift in the use of resources. However, the importance of zealous management is still not being recognized in all areas. In some areas reliance is placed upon receiving additional funds after the planned amounts of fuel, mixed feed and other resources have been exhausted. Meanwhile, where the desire so exists, each farm is able to find reserves for realizing economies. The funds allocated are not always used in the most efficient manner possible. A situation must be achieved wherein each kilogram of mineral fertilizer, fuel or concentrated feed produces maximum results.

Each rural workers and each rural communist must make his own contribution towards fulfilling the impending tasks. The party organizations in the rural areas must clearly define their role in carrying out the complex plans for economic and social development as prepared on the farms. A chief concern in party work has been and continues to be that of increasing party influence in the various areas and ensuring that the communists and those who are capable of working in an industrious manner and producing high work results are assigned to the more important sectors of production. Only if this condition is met will we be able to implement the Food Program and achieve a further increase in the production of animal husbandry and farming products. In speaking before the 10th Plenum of the Central Committee of the Communist Party of Estonia in April of this year, Comrade K. Vayno stated: the work must be carried out in a manner so as to ensure fulfillment of the five-year plan for the production and sale of agricultural products to the state; as yet, the republic is showing fine results only in connection with grain, vegetable and egg procurements and in the case of livestock and poultry procurements -- it is lagging behind compared to the planned indicators. Hence, those to whom this applies must undertake the necessary measures to compensate for this lag and to fulfill their plans unconditionally.

This year's spring brought considerable and fine changes to our fields and farms. In all areas throughout the country the agricultural workers are associating their work with the historic Food Program. Indeed this present year is the first one in which the mobilizing effect of its conditions and the basically new organizational and economic measures are being manifested fully.

At the present time, the living and working conditions of workers attached to all branches and elements of the agroindustrial complex are characterized by common aspirations.

In the interest of raising administrative efficiency for the agroindustrial complex in the republic, a cost accounting agroindustrial association for the Estonian SSR was created in March of this year. In connection with this action, the following organizations were abolished: the Ministry of Agriculture, the State Committee for Production-Technical Support for Agriculture and the republic's State Committee for Land Reclamation and Water Resources. It was also considered advisable to include in the agroindustrial association the state khokhimiya Scientific-Production Association and the administration for the poultry raising industry, which was previously an independent unit. The need for reorganizing the administration of agriculture was dictated by life itself and it conforms fully to the aims of the 26th party congress and the May and November (1982) Plenums of the CPSU Central Committee.

The principal task of the republic's agroindustrial association is to ensure the implementation of the Food Program, raise the operational efficiency of the rayon agroindustrial associations, carry out improvements in the administration of the complex and in the economic mechanism and strengthen the kolkhozes and sovkhozes. With the formation of the republic's agroindustrial association, the prerequisites were created for more efficient use of logistical, financial and other resources, for successfully solving the long-range problems associated with developing the agroindustrial complex and for achieving a high level of efficiency in all of its branches.

Special importance is attached to defining at the very beginning the correct operational style for the new organization. Here we have in mind not just a simple changing of a signboard, but rather basically new forms and methods for management. The rates for further development of the branch and the implementation of the Food Program will depend upon the art displayed in the administration of agriculture at the republic level. The efforts of the new organ of administration should be directed mainly at achieving coordination in the operations of all elements of the agroindustrial complex, a high level of efficiency in agricultural production and the intensification of agriculture. This implies the use of a new approach in the organization of production operations. As noted in March of this year, during a meeting of the Politburo of the CPSU Central Committee, the key to solving this task lies in the rapid introduction of cost accounting procedures into kolkhoz-sovkhoz production operations, in raising the responsibility of the personnel for more complete use of internal reserves and in strengthening planning, state and labor discipline.

The carrying out of the tasks set forth in the Food Program is associated with a change in the system of material stimulation for the collectives, specialists and leaders of enterprises and organizations of the agroindustrial complex. Here the principal form must be that of providing incentives for high final work results. This form is best used in concert with collective contracts in kolkhoz-sovkhoz production, which was valued highly during the all-union conference in Belgorod (March 1983).

The new method for organizing agricultural labor has a great future; it makes it possible to make better use of our chief wealth -- land. However the collective contract is still being introduced into operations slowly, with its introduction being hampered by inability to use it and by sluggishness of thought. Although approximately 30,000 brigades and teams are employing this method in agriculture throughout the country, in our republic it was employed by only approximately a dozen units last year (at the Kommunist, Elva and Luun'ya Sovkhozes, at the Saku Support-Model Sovkhoz and at some others).

Experience has shown that the brigade contract method creates the prerequisites required for releasing the creative initiative of the workers, raising wages, simplifying administration, achieving more rapid solutions for social problems in the rural areas and, even more important, for achieving considerable increases in the production of agricultural products.

This year it will be necessary to lay the foundation for the mass introduction of the collective contract method in agriculture in the Estonian SSR. By the

end of the five-year plan, this progressive form for organizing and stimulating labor must be firmly entrenched in kolkhoz-sovkhoz production. The rural rayon party committees and the party organizations of farms must initiate its introduction. When creating cost accounting brigades or teams, importance is attached to observing the principle of voluntary participation and carefully selecting the structure of a brigade, while bearing in mind the psychological compatibility of the personnel and also the candidacy of the elected brigade leader, whose orders must be carried out by all members of the collective.

The number of personnel in a brigade and the size of the tract of land assigned to it must be in balance. A brigade should ideally be assigned as much land and a crop rotation plan which will provide it with sufficient work for the better part of a year's time, for a staff of seven or at most 10-12 men. And certainly the task established for a brigade must be within its capability. In principle, the wages will be paid out in conformity with the volume and quality of the products produced. Prior to summarizing the final results, payments are made for work carried out on an hourly rate or piece-work basis. The remuneration -- monetary and payments in kind -- is distributed among the members of a brigade in accordance with a decision handed down during a general meeting. In the interest of ensuring stability in the structure of a brigade, the monetary payments and payments in kind called for in an agreement, for the fulfillment and over-fulfillment of production tasks, must necessarily be paid out.

The party organizations are obligated to ensure that the equipment and personnel assigned to a brigade are not transferred to other sectors without the consent of the brigade and also that these collectives are given proper attention by the management. The farm specialists must monitor the work of the cost accounting subunits on a daily basis and, when necessary, furnish them with advice.

Further improvements in agricultural production will depend to a considerable degree upon the social reorganization of the rural areas. It follows from the decisions handed down during the May (1982) Plenum of the CPSU Central Committee that a strengthening of the relationship between economic and social progress, considered to be typical for a developed socialist society, is defined as a leading area for a social program in our plans.

Housing and domestic construction in the rural areas occupies a most important place in the social program. Over the past two five-year plans, we have built 1.14 million square meters of housing space, kindergartens and nurseries for 6,400 children and dining halls for 3,807 occupants. The plans for the 11th Five-Year Plan call for the construction of 789,000 square meters of housing space, kindergartens and nurseries for 6,000 children, dining halls for 2,500 occupants and also clubs, gymnasiums and rural clinics. The fulfillment of this minimum-program must involve the participation of all of the rural party organizations. The solving of social problems and the investment of funds in developing the social sphere directly associated with production is making it possible, in addition to raising the material well-being of the people, to increase production efficiency noticeably. Success in the development of agriculture will depend upon how well we are able to direct the social processes in the rural areas.

A great amount of work still remains to be carried out in the future in connection with intensifying and raising the efficiency of agricultural production. Our most immediate task -- the successful completion of the third year of the five-year plan. During a recent meeting of the CPSU Central Committee, Comrade Yu.V. Andropov emphasized: "This present year of 1983 is a decisive one for the five-year plan as a whole. The chief work to be carried out this year consists of obtaining the planned yields in grain, forage, technical and other agricultural crops and consolidating the positive achievements realized in animal husbandry."

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AGRO-ECONOMICS AND ORGANIZATION

IMPROVING FIXED CAPITAL UTILIZATION IN UZBEK COTTON INDUSTRY

Tashkent SEL'SKOYE KHOZYAYSTVO UZBEKISTANA in Russian No 5, May 83 pp 54-55

/Article by M. Imamutdinov, chief of the Division of Organization and Methodology of Accounting of the Uzbek SSR Ministry of Cotton Cleaning Industry, candidate of economic sciences, and Kh. Umirov, director of the Shakhrisabz Cotton Cleaning Plant: "To Improve Fixed Capital Utilization"

/Text/ The 26th CPSU Congress stressed that the center of gravity--and this is the distinctive feature of the period of the 1980's--now shifts to the return on capital investments. In this connection a rational utilization of all available means of production and, especially, of fixed productive capital acquires great importance.

At the 7th Plenum of the Central Committee of the Communist Party of Uzbekistan held in September 1982 Comrade Sh. R. Rashidov, candidate member of the Politburo of the CPSU Central Committee, first secretary of the Central Committee of the Communist Party of Uzbekistan, drew attention to the fact that "a reduction in material expenditures, an overall and rational utilization of available resources and an efficient utilization of the created production potential are among the most urgent problems."

In the system of the republic's agroindustrial complex the cotton cleaning industry, which accounts for 28 percent of the republic's fixed industrial capital, has the biggest production potential. The sector's technical base annually expands and is strengthened as a result of the introduction of new industrial and production equipment and the establishment of highly mechanized enterprises, shops, lines and individual sections.

The growing arsenal of technical facilities requires an improvement in their utilization, whose efficiency is determined and most fully characterized by the output-capital indicator, that is, by the ratio of the amount of output produced during a certain period (usually 1 year) to the average annual value of fixed capital. Enterprises are interested in a constant growth of output-capital. However, there are certain discrepancies in the planning of this important indicator of financial-economic and production activity. The point is that to this day there are different views of the objective tendency of the dynamics of output-capital.

Some scientists and specialists maintain that output-capital does not necessarily have to grow. Conversely, its drop is a fully natural phenomenon. At the same time, they refer, for example, to the following facts: In the last 15 to 20 years there has been a decrease in output-capital both in individual sectors of industry and throughout the national economy. According to the data by specialist T. V. Zharovskiy, during the 1965-1980 period alone output-capital in the country's industry was lowered by 22 percent. Such a situation was the consequence of the fact that the rates of growth in the value of fixed capital outstripped the rates of growth of output (during that period fixed capital increased 3.3-fold and gross output, 2.56-fold).

In the republic's cotton spinning industry in the last 15 years output-capital dropped by more than 24 percent (during that time the value of fixed capital rose almost 2.6-fold and gross output, less than 92 percent).

These are the facts. Nevertheless, the drop in output-capital cannot be considered a natural phenomenon. Most economic scientists think so. They quite correctly maintain that the growth of output-capital should be the objective tendency in this process. Their point of view fully corresponds to the concept of Marxist-leninist science. According to Marx, in the course of time every unit of value of fixed capital should account for an ever greater amount of output as a result of its improvement. This applies to all types of fixed capital, not only to machine equipment.

It should be taken into consideration that the growth of output-capital is the consequence of technical progress and of the constant improvement in the utilization of available capital. In his report at the 7th Plenum of the Central Committee of the Communist Party of Uzbekistan Comrade Sh. R. Rashidov cited as an example what, as a result of the technical improvement in production and the introduction of the latest equipment, the Tashkent Aviation Production Association named Aviatrav obtained more than 90 percent of the total increase in output and its output-capital rose by almost one-third.

Technical progress, being a decisive factor in the increase in output-capital, presupposes the introduction of ever more productive equipment and brings about an increase in average output per ruble of fixed capital. It is not only a matter of the development of more productive equipment, but, what is most important, of the introduction of the most efficient means of labor.

This situation is confirmed by a comparative analysis of the change in labor productivity and in the output-labor ratio (see below).

In 15 years labor productivity in industry increased approximately 3.1-fold, as a whole, and the output-labor ratio, 2.6-fold. This indicates that the growth of productivity of the introduced equipment lagged behind the growth of its value. In other words, the value of the unit capacity of such equipment grows at higher rates than its productivity per unit of the same capacity. This phenomenon cannot be considered normal. The rates of growth of the value and productivity of equipment should correspond to each other.

Dynamics of Growth of Basic Indicators of the Uzbek SSR Cotton Cleaning Industry
(in % of 1965)

Indicators	1970	1975	On 1 Jan 81
Gross output	106.1	181.1	191.8
Value of fixed capital	134	194.4	259
Output-capital	79.4	84.6	75.8
Labor productivity	103.4	155.1	162.8
Capital-labor ratio	125.4	167	220

Similar indicators in the republic's cotton cleaning industry are even worse. Thus, while in 15 years labor productivity grew by almost 68 percent, the capital-labor ratio rose 2.2-fold. But, for example, in machine building a reverse correlation was formed. There labor productivity growth outstripped the growth of the capital-labor ratio considerably, which led to the growth of output-capital in this sector.

In the cotton cleaning industry the increase in the cost of equipment often does not correspond to the growth of its productivity. For example, the productivity of the PMP-160 linter is 60 percent higher than that of the KhLF, but its cost is five times higher! The productivity of the ZKhDD gin is 38 percent higher than that of the KhLL-2M gin, but its cost is three times higher! These examples could be continued.

The drop in output-capital in the republic's cotton cleaning industry is also due to the level of wear of fixed productive capital, deterioration in the quality of raw materials and other factors.

The decrease in output-capital also affects the growth of production costs (during the 10th Five-Year Plan 14 percent throughout the sector and 13 percent throughout the Uzbek SSR). This is also due to the rise in the proportion of depreciation and wages in the structure of production costs.

Throughout the country's cotton cleaning industry the share of depreciation in production costs rose from 0.5 percent in 1965 to 1 percent in 1981 (of wages, from 1.5 percent to 1.6 percent respectively) and throughout Uzbekistan, from 0.6 percent to 1.1 percent (wage increase--from 1.5 percent to 1.7 percent). However, with an efficient functioning of production, objectively, there is a drop in the share of wages (as a consequence of labor productivity growth) and of depreciation (as a result of the growth of output-capital).

The low output-capital is also manifested in the suppression of the growth and even decrease in labor productivity. In particular, in the country's cotton cleaning sector during the 10th Five-Year Plan it increased by only 7 percent and throughout Uzbekistan, by only 3 percent.

All this once again indicates that it is necessary to put an end to the underestimate of such an important indicator as output-capital and to bring it in correspondence with other basic criteria of evaluation of the operation of enterprises.

The method of measuring output-capital must be mentioned here. The indicator of gross output best meets the requirements of full recording of output. Fixed capital should be determined according to the initial value (for the convenience of calculation, although, theoretically, it is more correct to use replacement value). However, net output does not fully characterize the value produced by fixed capital (therefore, its growth will constantly lag behind the growth of fixed capital). It is totally inapplicable in the determination of output-capital in a physical indicator.

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